

House & Home

March 1956 SIX DOLLARS A YEAR—ONE DOLLAR A COPY



Long Island designs a new split . . . and discovers the patio — page 124

■ How to get new designs and patterns with concrete blocks — page 142

Sewage plant design and financing — page 172

New basic house can grow 20 different ways — page 156

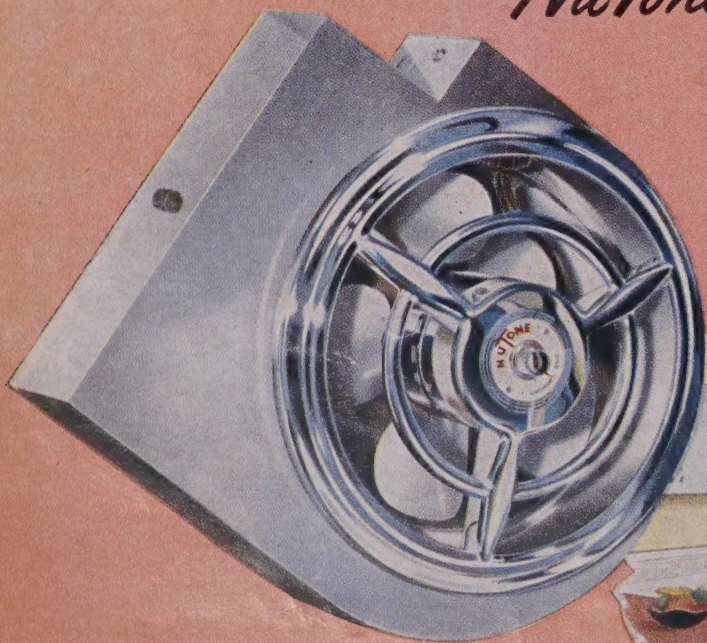
Experts show you better ways to use land — page 186

AMERICA'S BEST BUILDERS CHOOSE...

NuTone "In-Built"

...TO STEP UP THEIR NEW HOME SALES

NuTone In-Built **EXHAUST FANS**



FOR FRESH CLEAN AIR IN
KITCHENS AND BATHROOMS

10 MODELS FOR WALL AND CEILING
8 INCH AND 10 INCH SIZES.



●
Trouble-Free Performance
Backed by NuTone's Famous
\$500,000.00 Guarantee Bond.

NuTone Grilles are
Anodized Aluminum
— They Can't Rust.

NuTone In-Built **CEILING HEATERS**

THE WORLD'S SAFEST HEATERS
FOR "TOASTY-WARM" BATHROOMS

CHOICE OF HEAT-A-LITE
OR RADIANT MODELS



NUTONE HEAT-A-LITE
ELECTRIC HEATER PLUS CEILING LIGHT



●
Installed in the CEILING.
Out of Harm's Reach...

No Danger of Shocks or Burns

ROUNDUP

Builder opposition forces FHA to shelve plan for preferred standards in MPRs. Builders eye redevelopment.

WASHINGTON INSIDE: Home builder opposition has apparently shelved plans by FHA's architectural division to write its new idea of preferred standards into an impending revision of minimum property requirements for landscaping and site improvements (Feb., Roundup). . . . Capitol Hill veterans caution builders to expect no help from Congress this year toward easing their community facilities problem for schools. School construction legislation is badly bogged down. . . . **Sen. John J. Sparkman (D, Ala.) is raising a rumpus with FHA** because it will, he says, insure built-in ovens and stoves under its regular Title II program but refuses to insure stoves or refrigerators under Title I repair loans regardless of whether they are built in.

Have mass production techniques changed home building into manufacturing? Philadelphia Builder Carl Metz argues they have. He is pressing a test case before Philadelphia's Tax Review Board. It will affect at least 150 builders. Philadelphia's mercantile tax law allows manufacturers a percentage reduction on their gross profits because of the normally large spread between gross and net profits. Other merchants must pay .3¢ on their gross. Metz argues he should pay only \$1,882 instead of \$2,858 tax for 1953 and \$1,930 instead of \$2,276 for 1954.

HOW TO TRY IN HOUSING WITHOUT REALLY SUCCEEDING: Embarrassed city officials in Alexandria, Va., discovered their new housing code was so stiff it was illegal for many a husband and wife to share the same bedroom. The code requires 150 sq. ft. of floor space where two people sleep in the same room (FHA minimum for master bedrooms: 100 sq. ft.). . . . New York design circles are chuckling over the pronouncement by one of the better known architects that there is a trend on Long Island away from the right-to-left split and toward the left-to-right split.

Redevelopment building opportunities beckon more and more builders. NAHB Director Carl Gellert of San Francisco says he looks forward to the city's forthcoming Diamond Heights urban renewal project—biggest (324 acres) redevelopment in the US so far. It will have 2,300 homes on steep hillsides. . . . Chicago's Herbert Greenwald and Samuel N. Katzin are nearly ready to begin a \$25 million group of two-story, town house garden apartments and 22-story tower apartments in Detroit's long-delayed Gratiot redevelopment project. Architect: Ludwig Mies van de Rohe. . . . **Safeway Stores Inc. has changed policy, will now go into some general shopping centers** instead of sticking strictly to its own park and shop locations.

NEWS continued on p. 42

THIS MONTH'S NEWS

(index to the top stories)

Legislative outlook: Congress must steer between radical labor-public houser plans and administration proposals on housing. . . . p. 42

FHA windfalls: the government scores a major victory in its efforts to recapture 608 profits. . . . p. 42

Public housing: Galveston, Tex., scandal brings criminal charges against NAHRO ex-president. . . p. 43

Remodeling: what do home owners really want to know about it? Operation Demonstrate gets first answers. . . . p. 43

NAHB convention: builder spokesmen insist land, community facilities costs are making homes too expensive. . . . p. 46

Materials & prices: threatened hike in freight rates, costlier labor mean higher prices. . . . p. 51

Labor: AFL-CIO maps an organizing drive for homebuilding that has some builders worried. . . . p. 57

Mortgage market: discounts are clearly on the way down, even with 30-year loans as a brake. . . p. 69

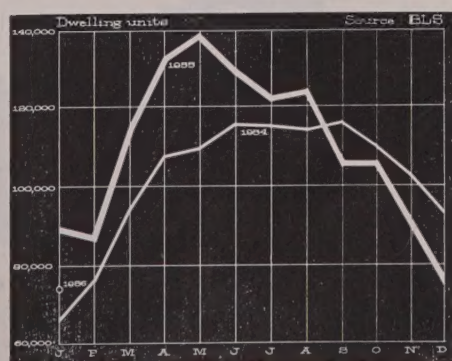
New S&L empire: Builder Mark Taper emerges as nation's No. 5 S&L operator, will quit building. p. 75

Military housing: a huge new program starts amid builder fears that the Pentagon will overdo again. . . . p. 83

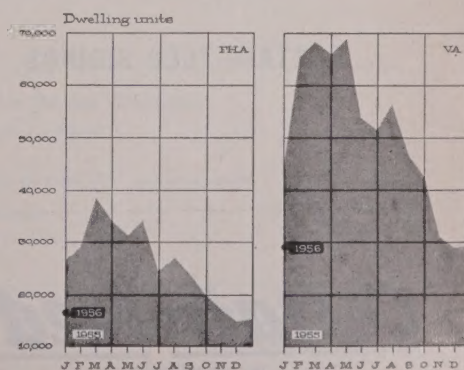
Regular Departments:

Mortgage quotations. . . p. 69
People. . . . p. 100

Indexes hint housing is bouncing back



Housing starts dropped slightly in January to 74,000 (73,000 private). But BLS noted that the downtrend of recent months was leveling off. The January annual rate was 1,183,000. Revised totals for '55 stood at 1,328,700—1,309,000 private, 19,700 public.



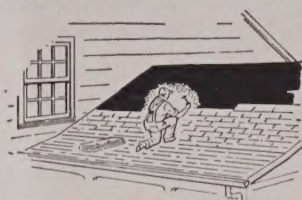
FHA and VA applications rose sharply in January, indicating that homebuilding was bouncing back from its slump. FHA applications reached 16,362; VA appraisal requests, 29,284. Applications usually foreshadow the trend in housing starts.



'56-the year to fix

Count on these
**8 BASIC CERTAIN-TEED
BUILDING MATERIALS**
For a Profitable Home Improvement Year

CERTAIN-TEED ASPHALT ROOFING



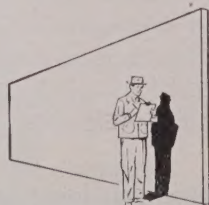
Beautiful new shingle colors that help sell reroofing jobs. Seven styles—including Woodtex,[®] the distinctive shingle with built-up graining—all weather resistant, fire resistant, long lasting.

CERTAIN-TEED FIBERGLAS* INSULATION



Fireproof Fiberglas is moisture resistant, rotproof, will outlive the house. Cuts heating bills up to 40%. New Fiberglas foil-enclosed batts and blankets help cut air-conditioning costs.

CERTAIN-TEED GYPSUM WALLS



Recommend either strong, easy-to-decorate Bestwall[®] Gypsum Wallboard or easy-working Certain-teed Plasters over Beaver[®] Gypsum Lath. Both give beautiful, firesafe walls and ceilings.

CERTAIN-TEED BESTWALL PAINTS



Put the perfect finishing touch to walls and ceilings with sparkling new Bestwall Paints. Decorator colors in alkyd flat, semi-gloss and interior gloss enamels, latex, casein and texture paints.

CERTAIN-TEED SIDINGS



Asphalt and asbestos cement siding shingles . . . handsome, durable, economical. Colors include new pastels . . . never need painting or other maintenance. For best results use over Certain-teed Weather-Shield[®] Gypsum Sheathing.

*Trademark OCF Corp.

Certain-teed

REG. U.S. PAT. OFF.

Quality made Certain . . . Satisfaction Guaranteed



CERTAIN-TEED PRODUCTS CORPORATION

ARDMORE, PENNSYLVANIA
EXPORT DEPARTMENT: 100 EAST 42ND ST., NEW YORK 17, N.Y.

ASPHALT ROOFING • SHINGLES • SIDING • ASBESTOS CEMENT SHINGLES
GYPSUM PLASTER • LATH • WALLBOARD • SHEATHING • ROOF DECKS
FIBERGLAS BUILDING INSULATION • ROOF INSULATION • SIDING CUSHION
PAINT PRODUCTS—ALKYD • LATEX • CASEIN • TEXTURE • PRIMER-SEALER



NEW COPPER DRAINAGE SYSTEM MANUAL

- Explains the essentials of drainage systems
- Tells how to install copper
- Proves why copper costs less
- Pictures and describes use of fittings
- Contains valuable tables and charts

To be up-to-date, here's a book every architect and builder should have in his files. Though dealing with a technical subject, liberal use of illustrations together with non-technical explanations makes it valuable for the beginner as well as experienced personnel. Use coupon below to obtain your free copy.

NIBCO

NIBCO is the full line

From the smallest coupling to the big house trap, NIBCO's line is versatile . . . 65 different types in all. This means fewer fittings on many installations.



Northern Indiana Brass Company
366 Plum Street, Elkhart, Indiana

Please send free copy of NIBCO's new manual on copper drainage systems.

NAME _____
FIRM NAME _____
ADDRESS _____
CITY & STATE _____

LEGISLATIVE OUTLOOK:

Squabbles loom over FNMA, repair loans, public and 'middle-income' housing

It was still the time for pouring legislative ideas into the Congressional hoppers—but broad outlines of what will emerge are growing clear.

The Housing Act of 1956 will be an omnibus measure written in committee—probably by John Sparkman's Senate housing subcommittee. Democratic strategy calls for re-shaping administration proposals by considering all bills at once.

The administration bill (still bottled up in the Budget Bureau when this was written) will ask few changes in addition to those already proposed by President Eisenhower in his state of the union and budget messages (Feb., News). **Most important new proposal: cut the stock purchase requirement for selling mortgages to Fanny May.** Instead of the mandatory 3% stock purchase, give the administration power to set the rate from 1% up. This would slow conversion of Fanny May's secondary market operation to private ownership, unless it triples her mortgage business. A good bet: Congress may cut the 3%, but will spell out a new figure.

Hearings will get under way about the middle of this month. Probable outcome:

Public housing—Sparkman's committee can choose anything between the 35,000 units a year urged by Eisenhower to the 200,000-units-a-year in a new bill by Sen. Herbert Lehman (D, N.Y.). **It may well settle on the 135,000 units it urged last year.** The House will balk—as usual. Rep. Jesse Wolcott (R, Mich.) predicted last month that the House will not accept a housing bill this year that does not tie public housing to a "workable program" for renewal.

Middle-income housing—Senate Democrats will probably insert some kind of a program to aid "middle-income families." This is one the private industry will watch closely. Many of the schemes would vastly increase federal suzerainty over housing.

FHA repair loans—Democrats will seize the administration's effort to get FHA Title I repair loans eased (from \$2,500 to \$3,500 loan limit, from three to five years amortization) to raise a cry that the interest rate is too high. The 5% interest plus 5% discount means a true rate of 9.7%. Democrats will call this too high.

College housing loans—The administration faces an uphill fight (and will probably lose) its bid to raise the interest rate for college dormitory loans. It is now so low that the Treasury loses money on the deal and private lenders are being pushed out of the field. But a big backlog of applications awaits action at HHFA. Congressmen, including many Republicans—hesitate to raise the rate until schools in their districts get the loan they seek.

Labor, public housers team up to back bill to inflate federal role in housing

Public housers, backed by the AFL-CIO, put in a major housing bill so loaded with extreme proposals that even its supporters knew it had no chance of adoption. But the measure, introduced by Sen. Herbert Lehman (D, N.Y.) and eight other so-called liberal Democrats, can prod the Sparkman committee to be bolder in writing the legislation it finally offers. Public housers know this. But it is a sobering thought that today's radical ideas often become tomorrow's pattern.

Among other things, the Lehman bill would: 1) authorize 200,000 public housing units a year for three years; 2) set up a \$1 billion program to guarantee obligations of states and cities—to solve the community facilities problem; 3) expand HHFA's community facilities loans by \$1 billion; 4) give \$1 million a year for ten years for scholarships to train more city planners and housing technicians (i.e.—bureaucrats); 5) up maximum FHA terms to 40 years; 6) give the Home Loan Bank Board \$200 million to buy stock in new savings and loan associations; 7) set up a Natl. Mortgage Corp. with \$100 million capital stock subscribed by the Treasury to finance a huge middle-income plan. Loans would go to middle-income families or nonprofit co-ops at the cost of money to the government plus ½% for servicing (or about 3%).

A second Lehman bill would create a Department of Housing in the cabinet. It has no chance of passage, either.

VA loan program faces struggle for continuance

Should the VA home loan program, which expires July 25, 1957 for World War II veterans, be allowed to die? Builders, veterans and a lot of lenders want to keep it going, but influential support is growing for letting it run out.

President Eisenhower implied in his budget message that "readjustment benefits" for veterans had about served their purpose. Practically all World War II veterans have assumed their civilian status in our economy and share equitably in the general prosperity," said the President. "As a group, they have made the transition from military to civilian life and do not require extension of these readjustments benefits [for education and homes]."

Rep. Olin Teague (D, Tex.), chairman of the veterans affairs committee, wants the home loan program ended because he does not think it has "done much for the millions of former GIs living in small towns or rural areas." Teague also contends that discounts on VAs have risen to a point where they bring the interest rate to a par with conventionals. As long as the veterans are paying the going rate anyway, Teague does not see why VA should go on underwriting the lending and piling up its contingent liability.

This kind of thinking from a House leader means probable action toward restrictive amendments to the program. (Teague has also protested referring VA direct applications to VHMCP.) Some kind of down payment requirement, for example, is sure to be asked by conservative House members before they vote to continue the program.

On the other side of the fence are organizations like the big US S&L League, which urged a "reasonable" extension of the program.

VA's attitude: get Congress to make up its mind as soon as possible. The agency does not want a last-minute rush of applications if announcement is made suddenly that the program will expire on time.

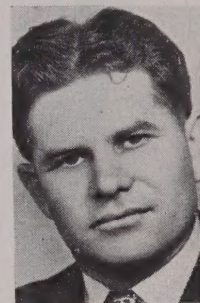
FHA wins major victory in drive on 608 windfalls

FHA scored a major victory last month in its effort to recapture 608 windfall profits.

A federal district judge in Alexandria, Va. ruled that payment of dividends from mortgaging-out profits was improper.

This has been one of FHA's basic premises in moving against 15 projects to recover windfalls. The government concedes the windfall profit itself is not illegal. But FHA has contended that such dividend payments are a violation of the charter giving FHA as the only preferred stockholder the right to oust project directors, elect its own and sue to regain the money. Reason: 608 charters specifically authorize dividends only out of net earnings.

The Alexandria ruling was the first which clearly upheld FHA on this crucial point. The decision involved two projects: Shirley-Duke



Teague

Apts. Inc. in Alexandria (E. J. Preston, Herman W. Hutman and Bryan Gordon Jr., sponsors) and Beverley Manor, Inc. in West Columbus, Ohio (Don Loftus and C. Porter, principals). FHA lists the combined windfall for the two projects at around \$2.5 million.

There was no doubt that the agency will use the decision to bolster its drive to get back mortgaging-out monies from other projects.

Judge Albert V. Bryan ruled that even though the windfall money had been transferred by the corporations to surplus "it remains insured mortgage money and certainly it never has become net earnings. . . . The court concurs [with the opinion of the FHA commissioner]—the insured monies were not available for dividends."

He added: "Another suggestion in argument, that the money could have been applied to salaries or other operating expenses, is hardly sound for it would raise perplexing problems as to the use of capital for current operations and have doubtful tax effects."

The judge postponed the effective date of his decision 40 days to give the corporations time to appeal.

OPERATION DEMONSTRATE:

Project shows what public wants to know for repairs

What does the average city-dweller want to know about home improvement?

Nobody knew until recently. Now ACTION, the non-profit effort to educate the people to the whys and wherefores of slum eradication, has come up with a first answer.

ACTION set up a pilot-project information center in Cleveland last October to tie in with Operation Demonstrate, the big home improvement promotion sparked by lumbermen, builders, architects and others with the help of HOUSE & HOME's market research department (see below). The information center has been a success, such a success that six other cities will try it—Chicago, Detroit, Los Angeles, Oakland, Knoxville and St. Louis.

In the first two months of operation, personnel at the information center (it is now staffed by members of a Cleveland citizens' group called Better Homes and Neighborhoods, Inc.) answered 827 questions. Some of them were tough: "Why hasn't something been done to educate people to take care of their homes?" "Are you interested in housing for minority races?" "How can I reduce the amount of heat loss through my glass window?"

More than half the "first questions" (many visitors asked more than one) fell into three classes: 1) 22% came from persons planning remodeling work (a substantial number planned to do it themselves) who wanted free architectural advice; 2) 20% were from persons who had specific repair problems or wanted to know how to use certain building materials; 3) 14% were from people who wanted information about Cleveland's Garden Valley project (the first urban renewal area in the city).

More than 350 people asked about Operation Demonstrate.

Most technical questions involved remodeling of the kitchen or bathroom.

Two dozen persons wanted answers on Cleveland's building regulations.

Several wanted to know how to finance improvements. For them, there was good news in Cleveland. The city's five biggest banks, acting for civic good at the instigation of Operation Demonstrate's staff, announced that they would write long-term, low-interest loans for home improvement. The banks—Cleveland Trust Co., National City Bank, Central National Bank, Society for Savings and Union Bank of Commerce—have always offered such terms to a few favored customers. But now they were broadening this application.

They will lend \$2,500 or more for periods up to 15 years at 6%. This compares favorably with FHA's Title I terms. A three-year Title I loan for \$2,500 means monthly payments of \$80. One of Cleveland's "liberalized remodeling loans" for the same amount for an eight-year term cuts payments to \$33 a month. On a 15-year amortization, they would be cut to \$21.

The banks will recast an existing mortgage to take care of the new loan (the open-end

mortgage is only sparingly used in Ohio because of legal ambiguities as to whether such advances take priority over subsequent encumbrances). Charges for title search, appraisal and inspection may run as high as \$80 to \$150. Lenders will also lend where the property is free and clear, preferably for a minimum \$2,500.

Mortgage delinquencies reach 'phenomenal' low

Home owners are getting better and better about meeting their monthly mortgage payments.

At the end of 1955, only 2.18% of 2,082,384 mortgage payments were delinquent one month or more, compared with 2.45% a year earlier. And the latest quarterly delinquency survey by the Mortgage Bankers Assn. shows payments more than 60 days overdue represent only 0.47% of all mortgages.

"Phenomenal," MBA calls it.

PHA demands control of projects, official indicted in Texas public housing scandal

For the second time in three years, a major public housing scandal erupted in Texas.

And again a former president of the Natl. Assn. of Housing and Redevelopment Officials was accused of abusing his local public housing office.

The Public Housing Administration demanded that the Galveston Housing Authority surrender control of six federally-financed postwar projects (600 units) because of corrupt management. Marshall W. Amis, head of PHA's Ft. Worth field office, accused the authority of 36 violations—"abuses" in handling of funds and "false reports" to PHA. Galveston housing commissioners refused and PHA promised court action to seize them.

Key figure: NAHRO ex-president (1951-52) L. Walter Henslee, GHA executive secretary and Mr. Big in



Henslee

Galveston public housing from its inception in 1940 until he resigned last December. A federal grand jury charged Henslee with eight criminal violations of the US code.

Under Henslee's management, public housing had become a sizable operation in Galveston.

He guided it through wartime stresses and led it into a big postwar buildup. Today, Galveston has 1,034 public housing units. The housing authority lists assets of nearly \$9 million. In fiscal 1954, it collected \$652,626 in rents.

In 1953, Henslee took on an extra job as executive director of the Pelican Island project (now the Pelican Island Development Corp.), a private group which is seeking to build up nearby Pelican Island into a big industrial site. Henslee became vice president and general manager of that promotion while still serving the housing authority, resigning his public job only last December when the work load for the Pelican Island project grew too heavy.

A month later, PHA descended on Galveston. Among its charges: the housing authority set up a revolving fund from authority money and used \$83,552 of it for Pelican Island. As of Jan. 21, Amis charged, the fund showed an overdraft of \$21,866.

PHA also accused the housing authority of using GHA staffers for non-housing work at such places as Henslee's home and duck blind, his mother's home, the Galveston Skeet Club, and the house of former Mayor Herbert Y. Cartwright. Amis charged that two checks totaling \$828 were withdrawn from the revolving fund for ex-mayor Cartwright's campaign expenses. Other charges: GHA funds were used to buy property for both rental, and improvement and resale, with resulting profits going to Henslee.

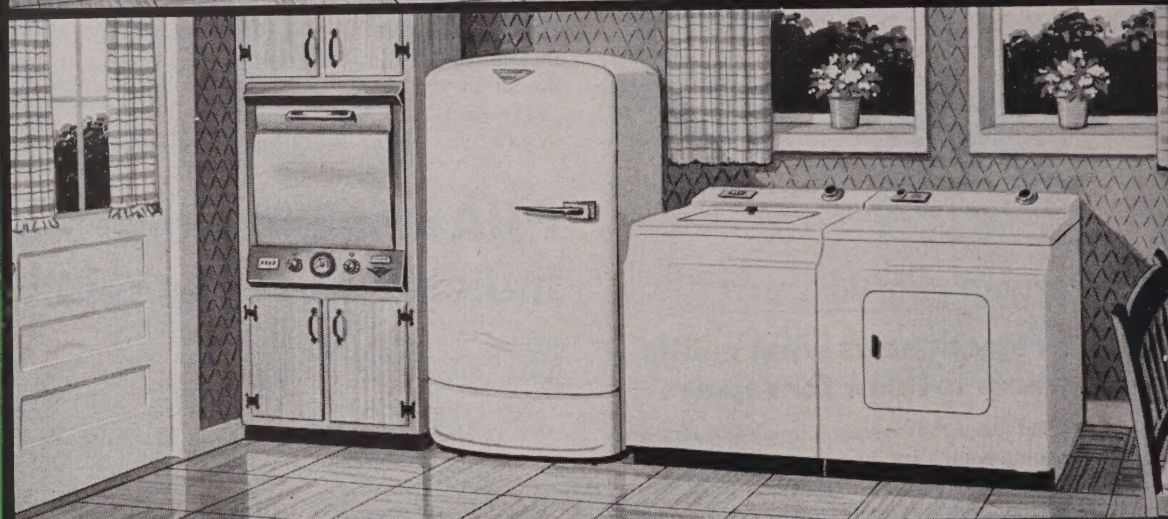
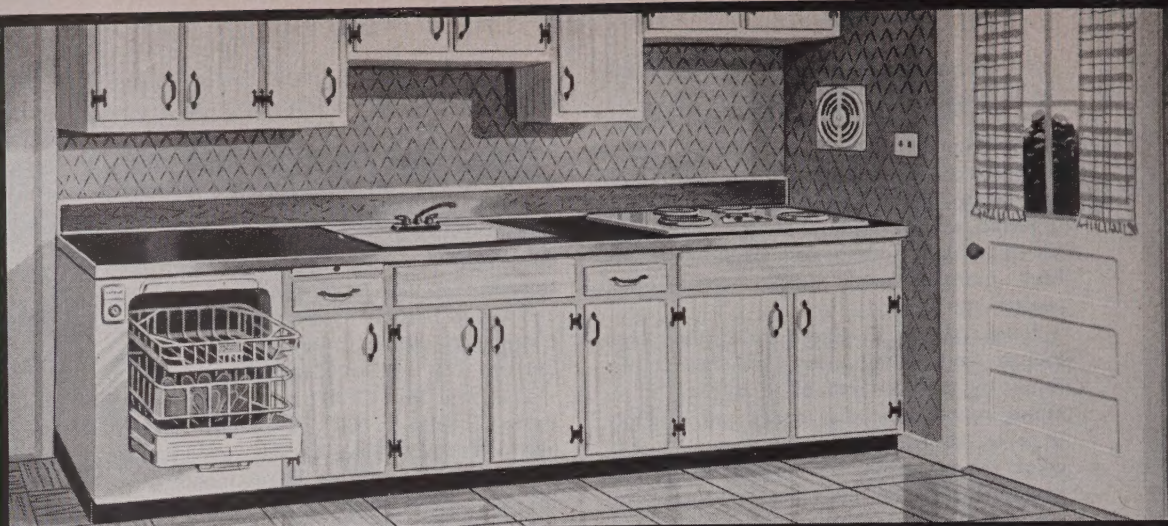
In demanding the return of the six projects (three other GHA projects were not federally financed), Amis reminded the five civilian commissioners that some of the "abuses" were caught by PHA auditors in 1953 and 1954, but that instead of "curtailing such abuses, the extent and frequency thereof was increased."

Most of the criminal charges against Henslee involved rent money the grand jury said he did not turn over to the housing authority. Four counts accused him of not listing rental income in four annual reports to PHA. Two counts charged him with receiving "with intent to defraud PHA . . . and with intent to divert to his own purposes" a total of \$6,025. Another accused him of causing a housing authority employee to have title of a Willys station wagon transferred to himself, then making him let Henslee use the Willys as a down payment on a 1952 Ford convertible for Henslee's personal use.

Other former NAHRO president involved in public housing scandal: Erwin W. Blum (1947). He was fired in 1952 from his \$12,000-a-year job as executive director of the Houston Housing Authority, and later given a year's suspended sentence, on charges of not reporting income and other misdeeds.

NEWS continued on p. 46

first
with
the
finest
for
'56



**The Hotpoint Kitchens
In These Chapel Hill
Homes Include . . .**

- (1) Hotpoint Automatic Dishwasher
- (2) Automatic Washer
- (3) Automatic Dryer
- (4) Super-Stor Refrigerator-Freezer
- (5) Customline Oven
- (6) Customline Built-in Surface Cooking Unit

Hotpoint Colortone Appliances Help

Paulsen Bros. Uses Them To Highlight Low-Cost

IT's a matter of simple arithmetic in Chapel Hill. 5 Hotpoint Colortone Appliances . . . plus surface cooking unit in stainless finish . . . plus 5 other quality extras . . . plus a price under \$12,000.00—equals 54 homes sold on the opening week-end!

The result of these mathematics came as no surprise to Paulsen Brothers, the builders who developed this attractive Long Island community. They planned it that way—by featuring a Hotpoint Colortone Kitchen in a house that offers 3 bedrooms, baseboard hot water heat, full basement, attached garage, and a large landscaped lot at \$11,990.00 complete.

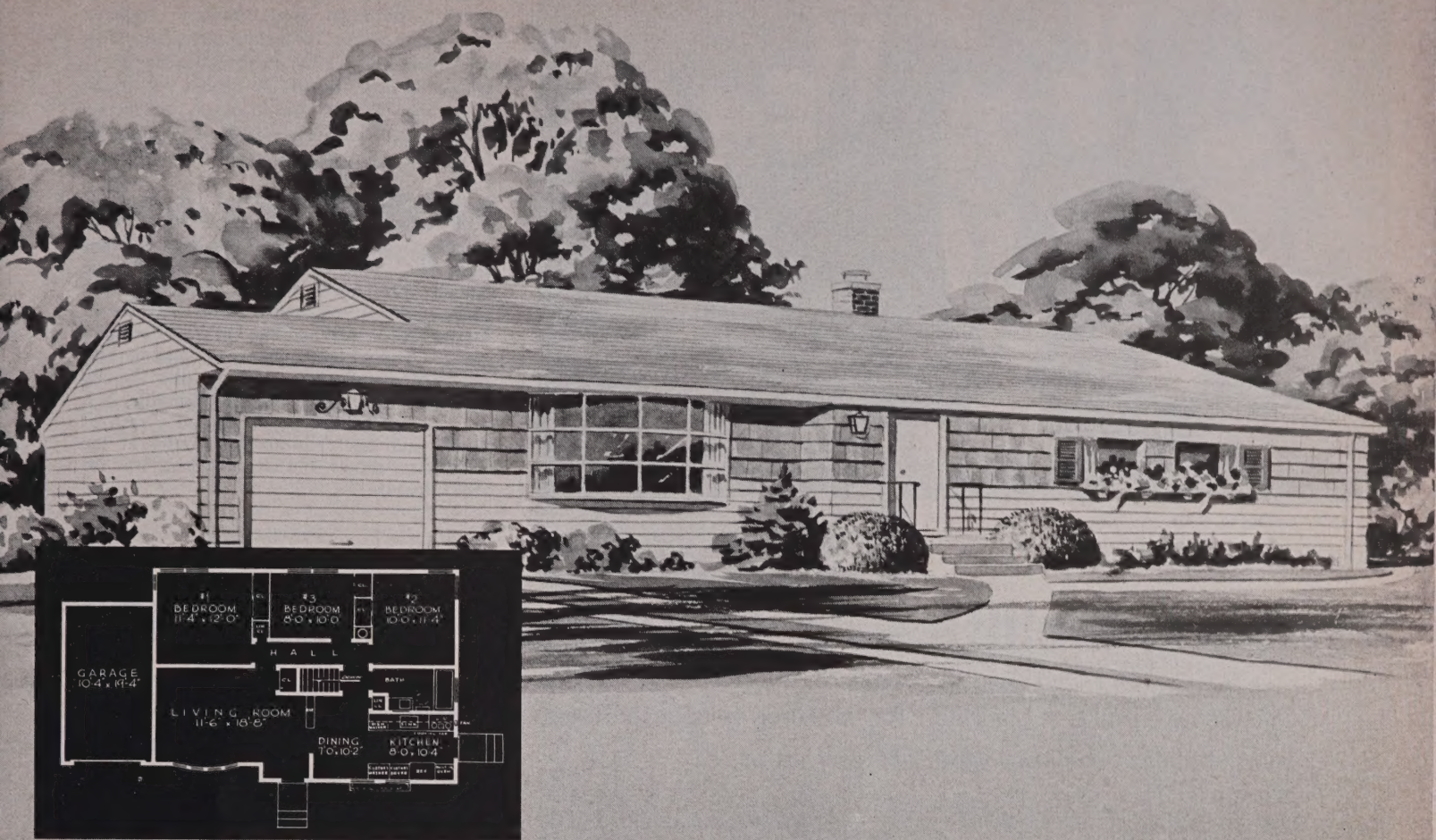
To fully capitalize on the kitchen's growing influence on selling the home, these three steps were taken: (1) because of

their outstanding consumer recognition and acceptance, Hotpoint Appliances were specified; (2) Hotpoint Colortones were selected to complement the interior decorating; (3) and all advertising and literature stressed the "Hotpoint Home." A simple plan, easily executed—with obvious success.

Chapel Hill is another example of what merchandising-minded builders all over the country are doing to attract more buyers . . . close more sales . . . and gain "plus" profits. And there are Hotpoint Appliances for every home, to suit every preference. The complete Hotpoint line of kitchen and home laundry equipment includes: conventional, "free-standing" models; built-ins, for ultra-modern beauty and efficiency; modular kitchens, incorporating various combinations of

RANGES • REFRIGERATORS • DISHWASHERS • DISPOSALS®
WATER HEATERS • FOOD FREEZERS • AUTOMATIC WASHERS
CLOTHES DRYERS • AIR CONDITIONERS • CUSTOMLINE

look to **Hotpoint**



A CHAPEL HILL—LONG ISLAND HOME

Whether you are building low-cost homes for the mass market, custom homes where "price is no object", or for budgets in-between, be sure to include a full line of matched Hotpoint Appliances in the kitchen. The

sale will be easier, you make a larger profit, and your customers will appreciate the convenience and economy of being able to include the famous Hotpoint Appliances in their VA or FHA mortgage.

Sell Fifty-Four \$11,990 Homes In First Week-end Offered!

Homes In Chapel Hill Development

appliances in one sweeping counter-top cabinet; in a choice of traditional white, gleaming stainless, or 5 soft Colortone finishes.

Let a Hotpoint Kitchen visibly reflect the quality you build into your homes. See your Hotpoint Distributor—his Builder Specialist will be happy to help you create a kitchen that sells your homes.

**Hotpoint offers the MOST COMPLETE LINE
of Built-In Appliances in the market!**

Whether you build for the mass market—for the middle-income bracket—or for custom-home buyers—there's a Hotpoint Built-In Kitchen to fit your cost picture.



"The kitchen is the ideal showcase for quality in a home. No other room is used more often, is more important, or comes under closer scrutiny by the prospect. That's why we chose to install and promote Hotpoint Colortone Appliances in our Chapel Hill homes."
"The sales record shows it was a wise choice . . ."

Paulsen Bros.

for the finest—first!

HOTPOINT CO. (A Division of General Electric Company) 5600 West Taylor Street, Chicago 44, Illinois



New NAHB officers posed for first portrait following their election. In the only contest, George Goodyear (seated, l) of Charlotte, N.C. defeated Leonard Frank of Long Island, N.Y. for First Vice-President. The others: seated, President Joseph Haverstick of Dayton, Ohio (c) and Second Vice-President Nels Severin of San Diego (r); standing, Secretary Martin Bartling of Knoxville (l) and Treasurer Carl Mitnick of Merchantville, N.J. (r). Campaigning again produced a rash of poster and lapel buttons (a novelty at the 1955 NAHB show), but electioneering was far less frenzied.

NAHB CONVENTION:

Are land, facilities costs killing a big market?

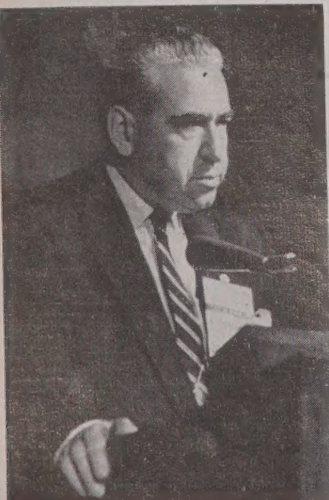
Spokesmen make a big pitch for cheaper houses although many builders say they don't sell any more

Homebuilder spokesmen at NAHB's 12th annual convention found a dark cloud in the silver lining. **Soaring costs of land and community facilities plus rising FHA and VA construction standards, they chorused, are pricing new houses out of the mass market.**

Said retiring President Earl W. Smith: "We have to go back to a point about five years ago"—to 30-gal. hot water heaters with a 5-yr. guarantee instead of 40-gal. heaters guaranteed for 10, to 1,500 lb. concrete, to 28' widths instead of 36' "raceways" for minor residential streets. Cost of completed lots, he said, has shot up "30 to 40%" in the last "two to three years." Result: prices of builder-homes begin at \$12-\$13,000 instead of \$9,000 where Smith thinks they should and could. "Sure, it's a better house," he admitted, "but there's no use protecting a family

completely out of the market." **To solve community facilities problems, Smith advocated metropolitan planning, metropolitan districts, or annexation of suburbs by cities.** The present arrangement of local governments in metropolitan areas has "outlived its usefulness," he said. The convention urged appointment of a Presidential Advisory Commission to study the subject.

Was such gloomy talk odd coming from the leaders of a group at the peak of its powers—in influence, in production and in numbers (36,598 of which about half are actually builders)? There were potent reasons for it. One reason: the increasing cry by labor, public housers and Democrats in Congress for more low-priced new homes for "middle-income" families. Sen. John J. Sparkman (D, Ala.), who is probably Congress' most influential member on housing matters when the Democrats are in control, told NAHB the trend to higher-priced homes "perturbs me."



Retiring President Smith

What most builders were doing about cheaper houses was another matter. Incoming President Joe Haverstick agreed with Smith that builders "are losing the biggest part of our market" by higher prices. He added he had just begun some homes priced at \$22,000 to \$25,000—more expensive than he had built before. Said Builder Joseph Goldman of Chicago: "The big market is for a larger house and a better house, more so this year than ever."

NAHB, Producers' Council act to standardize sizes

NAHB and the Producers' Council took a major step toward standardizing dimensions for materials and equipment in homebuilding.

The two organizations, meeting simultaneously in Chicago, each agreed to hire a technical staff expert to push standardization. The decision means an added outlay of perhaps \$15,000 a year for each group. That means they expect results.

First project: standardization of window and door openings for frame and masonry homes. NAHB and the building materials manufacturers hope to agree on a formula to cut the present hundreds of sizes to 32.

Said President William Gillett of the Producers' Council (whose firm makes steel window frames): "Such a development as we propose is comparable to the introduction of the assembly line to the auto industry. Manufacturers will be able to mass produce a limited number of sizes. Warehousing and shipping costs will be cut. The builder will find his erection problems simplified, since he will be working with component parts designed to fit together properly with a minimum of waste on high-price, on-site labor. . . . But the real beneficiary will be the home buyer, who will get a better house for less money."

How much less? Editor-Publisher P. I. Prentice of HOUSE & HOME, speaking on a convention panel with Gillett, estimated use

MORE NAHB NEWS:

Other stories from the NAHB convention:

- ▶ How builders put up a house in 4½ hours with six best building ideas. . . . p. 178
- ▶ Experts show better ways to use land. p. 186
- ▶ Two articles about smaller builders. pp. 170, 188

of standard home components like doors, windows, masonry and bathroom fixtures would save more than \$1 billion a year.

The standardization push—substantially inspired by HOUSE & HOME's Round Tables (April '55 *et seq.*)—will aim for drafting a schedule of proposed changes by May—in time for review at spring industry conferences.

Row leads to suppression of air-conditioning report

The long-awaited final report on Air-conditioned Village at Austin, Tex., said a telegram sent out by one air-cooling firm, would be "surprisingly frank and forthright . . . with plainly written specifications as to how a home can best be air conditioned."

The report was due for unveiling during the builder show. But when some air-conditioning makers who helped finance the \$135,000 project read the text, their temperatures rose. Result: they insisted on locking up the 2,500 copies of the report until the manufacturers could tone down some of its comments. Fuming, Project Director Ned Cole argued with industry men four days, finally agreed to let a committee re-write the report for issuance in April.

At a panel, Cole was able to report only that the 21 guinea pig homes had average heating-cooling costs of only \$9.41 a month over the last year. He mentioned that acoustical treatment of plywood plenums and air-conditioning equipment closets, plus anti-vibration mountings on the equipment, had ended the noise that once was so notable in some of the homes (Feb. '55, News).

NAHB ex-President Dick Hughes, a scheduled participant in the air-conditioning panel, stayed away. Commented another Texas builder: "After this performance, I'll hesitate to believe anything I hear about air conditioning."

Labor Secretary warns of impending labor shortage

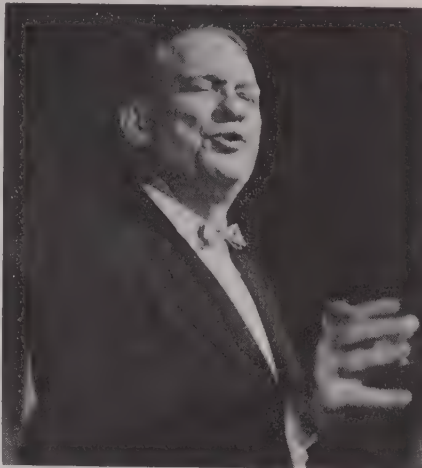
NAHB's 12th annual convention drew some 13,500 registrants, an estimated 17,500 visitors—a new record. Highlights in the proceedings:

► Labor Secretary James P. Mitchell, first cabinet officer to address an NAHB show, predicted a critical shortage of skilled labor unless the number of apprentices in training is boosted from the present 80,000 to about 300,000. Homebuilding must speed up technology to save manpower, he said.

► HMF Administrator Albert M. Cole, who predicted last November that 1956 would produce only a little over 1.2 million housing starts, cheerfully took it back. "Unjustifiably pessimistic," he said. New forecast: 1.3 million.

► Rep. Jesse Wolcott (R, Mich.), House minority leader on housing, predicted the House will refuse to pass a housing bill this year unless it contains the restrictions on public housing written into the 1954 Act but killed by Congress last year (see p. 42). He also disclosed that it was President Eisenhower personally who asked in 1954 that cities be required to have a "workable program" for an overall fight against slums before they could qualify for more public

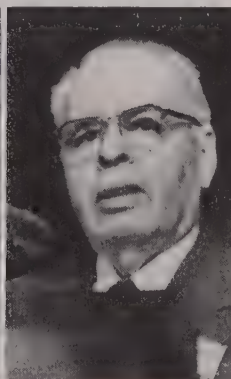
housing. Said Wolcott: "The President was very firm in these particulars: there should be no public housing except that required for people being displaced by slum clearance or other federal action. He pounded the breakfast table and said: 'Wolcott, that's as far as anybody should expect us to go.'"



Panel on "meeting the issue of public housing" drew less than 15 convention-goers. Newsmen asked President-elect Haverstick why builders showed so little interest. Said he: "The public housing program is not huge. . . . The fellows don't get so excited. . . . I don't think public housing is hurting them to a degree that concerns them."



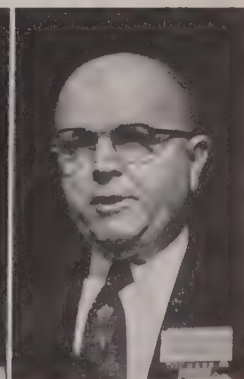
Sparkman



Wolcott



Cole



Boehm

Photos: H&H staff

FHA & VA warranty panel heard Asst. FHA Commissioner Charles Bowser (left, talking to Builder John A. Jacobson of Sacramento, Calif.) reveal that FHA spends perhaps \$300,000 a year in salaries for men to cope with public complaints about shoddy building. Bowser said one aide in FHA's Jamaica, N.Y. office (who spends full time on complaints), told him half are unjustified. Bowser contended FHA could "save literally thousands of dollars" a year by issuing a simple booklet for home buyers on the duties of home ownership. VA's Charles Hopkins noted VA has had such a pamphlet since 1948.



► School Superintendent Charles A. Boehm of Bucks County, Pa. gave builders hope that school needs can be met without saddling builders with the bill. Bucks County has done so, he said, although it has been one of the fastest-growing areas in the nation.

NEWS continued on p. 51

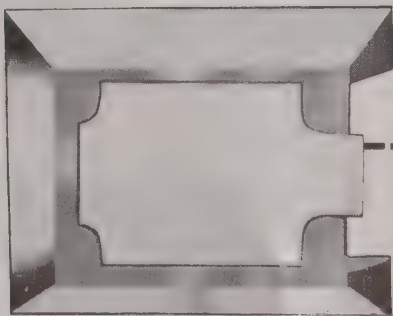
Public housing opposition last year from NAHB was muted. A faction among NAHB directors urged an increased campaign against it in 1956, but President Haverstick announced the association will fight it "no more vigorously than we have done." NAHB policy statement said "the phenomenal rise in consumer incomes" makes construction of more public housing needless.

Rep. Martin Dies (D, Tex.) (pictured at left) took the same tack: "In 1941, 10 million persons made less than \$3,000 annually. Today only 4 million make less than that." NAHB Executive Director John Dickerman seemed more concerned over moves for a "middle-income" housing program containing "billions in direct federal loans." He called this "socialized credit and therefore socialized housing in its starkest form."

opens doors with a **FLICK** of a finger!



SOSS LEV-R LATCH



FOR COMPLETE DETAILS ON THIS NEW AND
BETTER WAY TO OPEN A DOOR MAIL THIS
COUPON TODAY!

Soss Manufacturing Company
Department 51
21777 Hoover Road
Detroit, Michigan

Please RUSH me full details and prices on
Soss Lev-R-Latch ☐ Soss Invisible Hinge ☐
I am a ☐ builder ☐ architect ☐ dealer
☐ home owner.

Name _____

Address _____

City _____ Zone _____ State _____

SOSS INVISIBLE HINGES



Soss Lev-R-Latch is
made by the manu-
facturers of the
"Hinge that hides
itself," the Soss
Invisible Hinge.

HOUSE & HOME

MATERIALS & PRICES:

Big freight rate increase, \$5-per-hour labor threaten new rise in home costs

Wages in the West Coast lumber industry are up 8¾% this year, but the rise will not be passed on to the consumer.

This is not true of a rise in freight rates. If the Interstate Commerce Commission approves a 7% increase (see below), the price of green framing lumber coming into New York will increase by \$2.25 per Mbf.

The wage boost will not affect the price of lumber because the price is set by supply and demand and not by production cost. The price is considerably higher than it was a year ago, but this came about strictly because of floods in the major production areas, which cut production and boosted prices through the old supply-demand law.

Random length fir dimension dropped last month from a flood peak of \$80 to \$73-75 at the mill, with volume sales at \$73. Studs, which had jumped most, slid back to \$68-69. The softness in dimension grades was not reflected in timber cutting and uppers, which remained rather scarce and firm-priced. Fir plywood also remained firm.

What the wage boost is likely to do is this: months from now increased operating costs will force some marginal mills out of business. This means that supply will tighten. Assuming that demand remains the same, the supply-demand formula will go into action and the price of lumber will rise.

Fir men fight freight boost to meet pine competition

A threatened 7% nationwide increase in freight rates may confront builders with a \$25-a-house jump in lumber prices this month.

Lumbermen have protested the rate boosts. Southern pine producers are against any increase at all. Western lumbermen have asked the Interstate Commerce Commission to hold down the rate hike for lumber to a ceiling of 5¢ per 100 lbs. This, they maintain, would preserve the competitive status quo in the big

eastern market between Western fir and Southern pine. They argue that a percentage increase would impose a heavy penalty on Western woods which must travel much farther to most of their consumers.

Experts figure a 7% rate increase would add an average \$2 per Mbf to the price of softwood lumber shipped from the West Coast to markets east of the Rockies. It would add about \$2.12 per Mbf for shipments to Chicago and \$2.25 for shipments to New York. But if ICC grants the "hold-down" 5¢ per 100 lbs. formula that lumbermen seek, the price would rise an average of only \$1

(perhaps \$1.25 in Chicago). "Hold-down" ceilings on freight rates, each based on a different formula, already cover a wide range of commodities including lumber, coal, fruits and vegetables, canned goods.

If ICC grants the 7% rise, rates per Mbf of green framing lumber for general construction shipped to the East Coast can be expected to shoot up from about \$35 to \$37.25. Since the average house uses something like 10,000 to 12,000 bd. ft. of lumber, this suggests that another \$22.50 to \$25 will be tacked onto the cost of construction.

A percentage increase, if the ICC grants one, would also probably produce a slight shift away from fir to Southern pine.

An ICC decision was considered imminent—so much so, in fact, that the issue may turn out to have been settled while this report of it was being printed and mailed. There was also a good chance ICC would postpone a decision.

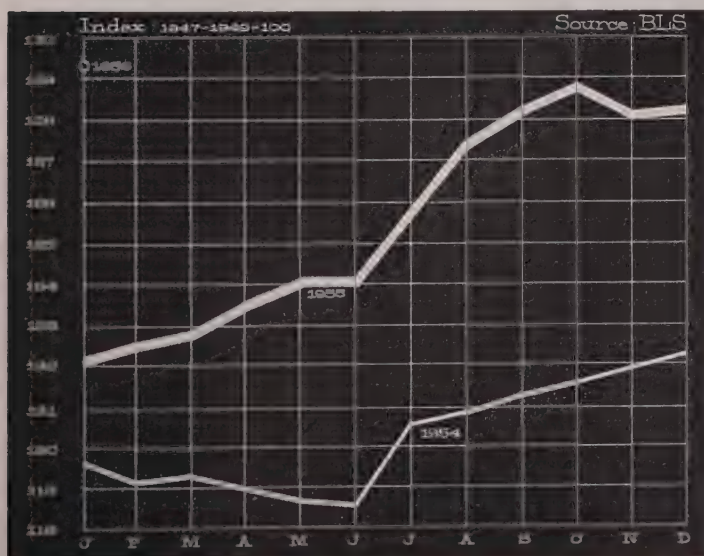
In any case, some kind of an increase in lumber prices from higher freight rates is in the cards. Western lumbermen point out that if the railroads did the same amount of business this year as last, at this year's operational costs, they would realize only 2.7% on their investment. Says Traffic Manager K. C. Batchelder of the West Coast Lumbermen's Assn.: "That's not enough to build needed new cars, keep up roadbeds and otherwise reinvest to supply our needs."

Revolution in technology seen by plywood executive

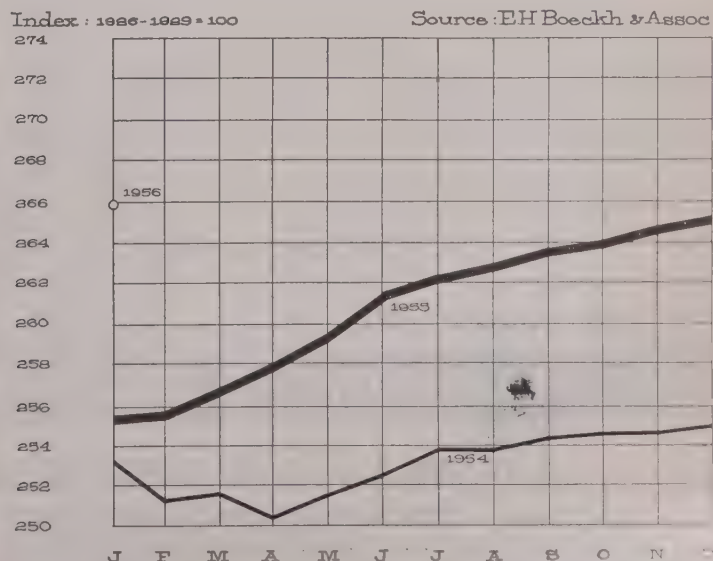
US Plywood and Crown-Zellerbach, the west coast paper firm, have developed a machine that Plywood President S. W. Antoville says "could revolutionize the technology of the plywood industry."

The machine makes possible use of lower-grade timber than the expensive Douglas fir peeler logs ordinarily used for plywood panels. Says Tony Antoville: "We have been deeply concerned over the growing

continued on p. 57



Materials prices went up a full point in January to a new all-time high of 129.3. This topped the previous record of last October by .6 points and represented a rise of 0.8% from the December level. BLS said four items accounted for the big jump: cement and gypsum, both up 4% from the previous month; building wire, up 3%, and Douglas fir, up 2%.

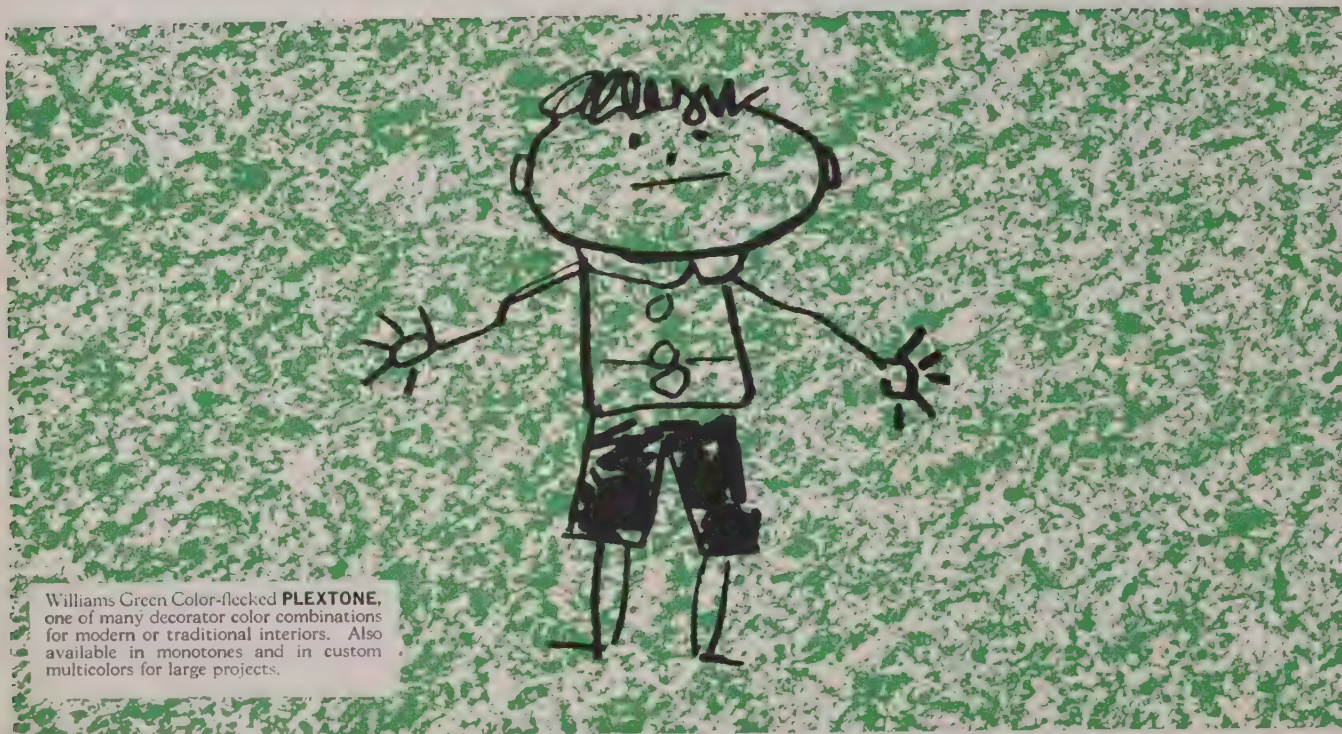


Boeckh's building cost index rose a full point in January, from 264.9 to 265.9. The rise was due mainly to increases in labor costs after first-of-the-year agreements, said Col. E. H. Boeckh. Examples: laborers' pay up 7½¢ at Seattle and 5¢ in Birmingham. Boeckh thinks the industry is in for a case of "fairly good inflation" during the spring.

LEADING HOME BUILDERS FEATURE IT AS

"CHILDPROOF" PLEXTONE

and no wonder! This new multicolored paint is stain-mar-grease-scratch-chip resistant!



Williams Green Color-flecked **PLEXTONE**, one of many decorator color combinations for modern or traditional interiors. Also available in monotones and in custom multicolors for large projects.

Never before a paint for home interiors like amazing, rugged color-flecked PLEXTONE. It's revolutionary...two or three *different* colors are sprayed at ONE time from ONE gun **WITHOUT SPRAY DUST** to form a multicolored, textured pattern. HOME OWNERS find this new multicolored decorator finish easy on the budget...it resists wear, soiling...and rambunctious youngsters. ARCHITECTS find that PLEXTONE gives them new styling resources, new design possibilities...because of its uniform coverage on all common types of surface materials, its durability, its multiple color combinations, its high light reflectivity. BUILDERS AND CONTRACTORS say PLEXTONE goes on easier, without spray dust...making possible neater, cleaner, faster jobs. And PLEXTONE's **FULL YEAR GUARANTEE** is a home sales *plus* offered by no other paint manufacturer!

SO RUGGED! Color-flecked PLEXTONE resists staining by crayon, ink, candy, grease, and other forms of soil. Its harder, thicker paint film cannot easily be scraped or scratched. It can be washed, scrubbed, scoured—even *sandpapered*—without marring. And touch-ups, if ever needed, defy detection!

SO PRACTICAL! Imagine! This amazing new paint gives you a color-flecked surface consisting of two or three different colors, sprayed from *one* gun at *one* time in *one* coat *without spray dust!* And PLEXTONE's textured surface has unmatched hiding power...cleans quickly and easily!

SO BEAUTIFUL! You've never seen a more unusual, more dramatic, more beautiful effect. PLEXTONE's multicolor finish matches the most skilled spatter-dash painting...in subtle tones-on-tone or a brilliant circus of colors.

Write today for **FREE** color chips and Color-flecked PLEXTONE application data.

M. & W. CO.
PLEXTONE® *COLOR-FLECKED*
SINCE 1976 TEXTURED ENAMEL
MAAS & WALDSTEIN CO.
World's Largest Producer of Multicolored Paints

2123 McCARTER HIGHWAY | MIDWEST DIVISION: 1658 Carroll Avenue, Chicago 12, Illinois
NEWARK 4, NEW JERSEY | PACIFIC COAST DIV.: Smith-Davis Co., 10751 Venice Blvd.,
Los Angeles 34, Calif.

MAAS & WALDSTEIN CO., Architectural Division
2123 McCarter Highway, Newark 4, New Jersey
Gentlemen: Please rush free Color-flecked PLEXTONE color chips and application data.

Name _____
Title (or occupation) _____
Company _____
Address _____
City _____ Zone _____ State _____

scarcity of high-grade peeler logs, but this process permits use of lower-cost, more abundant raw materials."

Not only will the development promote forest conservation, but it will also—so the companies think—help them tap a big new market, especially for siding.

The machine automatically fills splits, knot-holes and other irregularities in veneer stripped from logs, thus providing a solid base for a facing of resin-cellulose plastic. The plastic-surfaced plywood panel, marketed under the trade name of Duraply, is not new, but the cheaper core of the sandwich is. The companies (American Marietta Co. helped with the research) are proud to have found a non-shrinking substance to caulk veneer. They plan to keep its ingredients secret. The machine itself will be made available to other firms, probably on a royalty basis.

Some government-tested statistics on Duraply: a $\frac{3}{8}$ " sheet will absorb 8 to 10 grams of water in 4 hrs. A $\frac{3}{8}$ " sheet of ordinary exterior grade fir plywood will absorb 34 to 36 grams in the same period.

Other research news: the number of lumbermen sponsoring private projects with Timber Engineering Co., research affiliate of the Natl. Lumber Mfrs. Assn., has increased 65% from a year ago. Principal project: development of particle board.

Benefits push building wages close to \$5 hour

Are some categories of building labor approaching an over-all cost to contractors of \$5 an hour?

The Dow Service, construction news and cost analysts, thinks this will be true of plumbers and electricians in the New York area by July 1957. Plumbers are now paid \$3.75 an hour wages (an increase of 10¢). There is a 12% fringe benefit contribution by the employer and a new provision for an employer contribution of \$2 per day per plumber for an unemployment fund. These boost the cost of hiring a plumber to just under \$4.49 an hour.

Dow Service figures the cost of electricians at \$4.56, of which \$3.50 is wages. Some other trades are not far behind. Plasterers now cost \$4.35, bricklayers \$4.15.

Builder profit, overhead cut 5%, says appraiser

Profit and overhead for the average home-builder have shrunk in the last four years from 20% to 15% of the sales price of a typical house.

As a result, says Minneapolis Appraiser William B. Cusack, the home buying public is getting a bigger house at a smaller sq. ft. cost today than it did in 1952.

Four years ago, Cusack surveyed the "basic minimum new house" buyers wanted for the Minneapolis chapter of the Society of Residential Appraisers. He found it was a 720 sq. ft., two bedroom dwelling priced at \$9,400—or \$13.05 per sq. ft.

Six months ago, SRA asked him to repeat his survey. Cusack and an assistant scanned hundreds of builders' work sheets, compared bids of contractors and subs, studied homes

continued on p. 61

NEW LABOR TROUBLES FOR BUILDERS?

Teamsters will aid big AFL-CIO drive to organize non-union contractors

Labor's biggest drive to unionize building is under way.

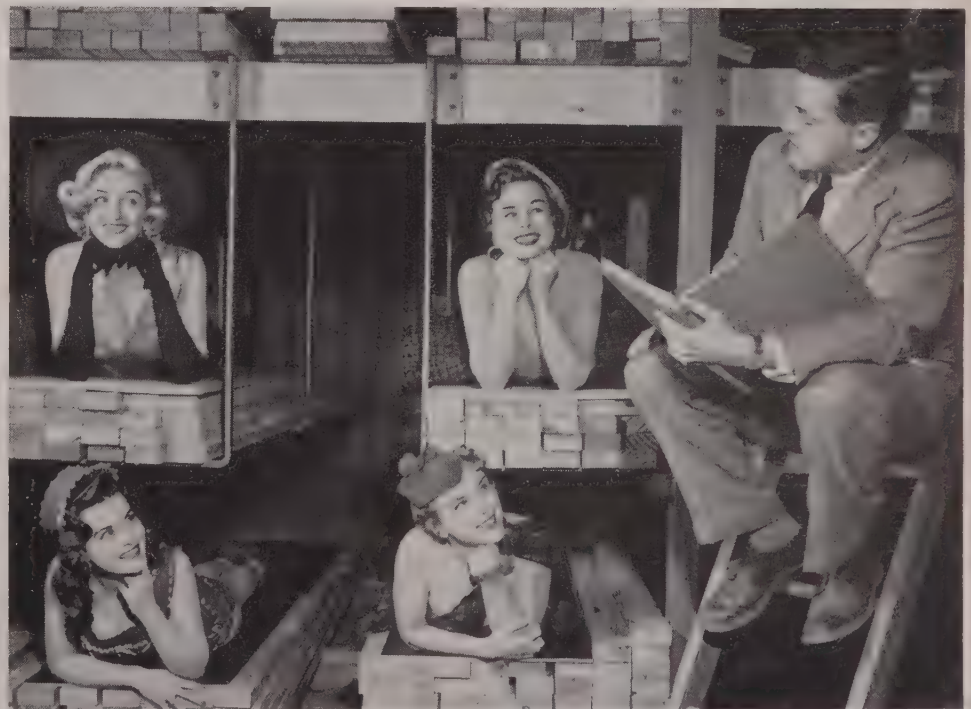
It is aimed straight at home building. Over-all goal announced at the AFL-CIO building trades' mid-winter meeting in Miami last month was organization of 1 million non-union construction workers. Most of these would be in home building—now only 40% to 50% organized.

"This is the news we've been dreading," said one NAHB official. Builders knew the move would come some time. But they were taken aback at the strength of the policy committee formed to push the drive. Besides Richard Gray and Frank Bonadio, chief officers of the AFL-CIO Building and Construction Trades Dept., it included some of the toughest leaders in the labor movement: Dave Beck of the teamsters, Peter Fosco of the laborers' union, Maurice Hutcheson of the carpenters.

Beck's presence on the committee looked especially threatening. If the teamsters want to, they can probably apply a stranglehold to home building by choking off delivery of materials to the job. What was Beck's angle? One theory: the teamsters may be seeking a deal under which they will grab control of hauling all building materials to the site.

The real trouble for builders, however, lies in the probability that the high command of the AFL-CIO may be able to iron out its internal squabbles before the construction industry can get itself sufficiently decompartmentalized to speak to Congress with a united voice on anything. Labor experts figure it may take the AFL-CIO two years to fit its new machinery together and present a united—and even more powerful—front. Can the construction industry meet this deadline? If it does not, said some construction men, it will face a deal of trouble.

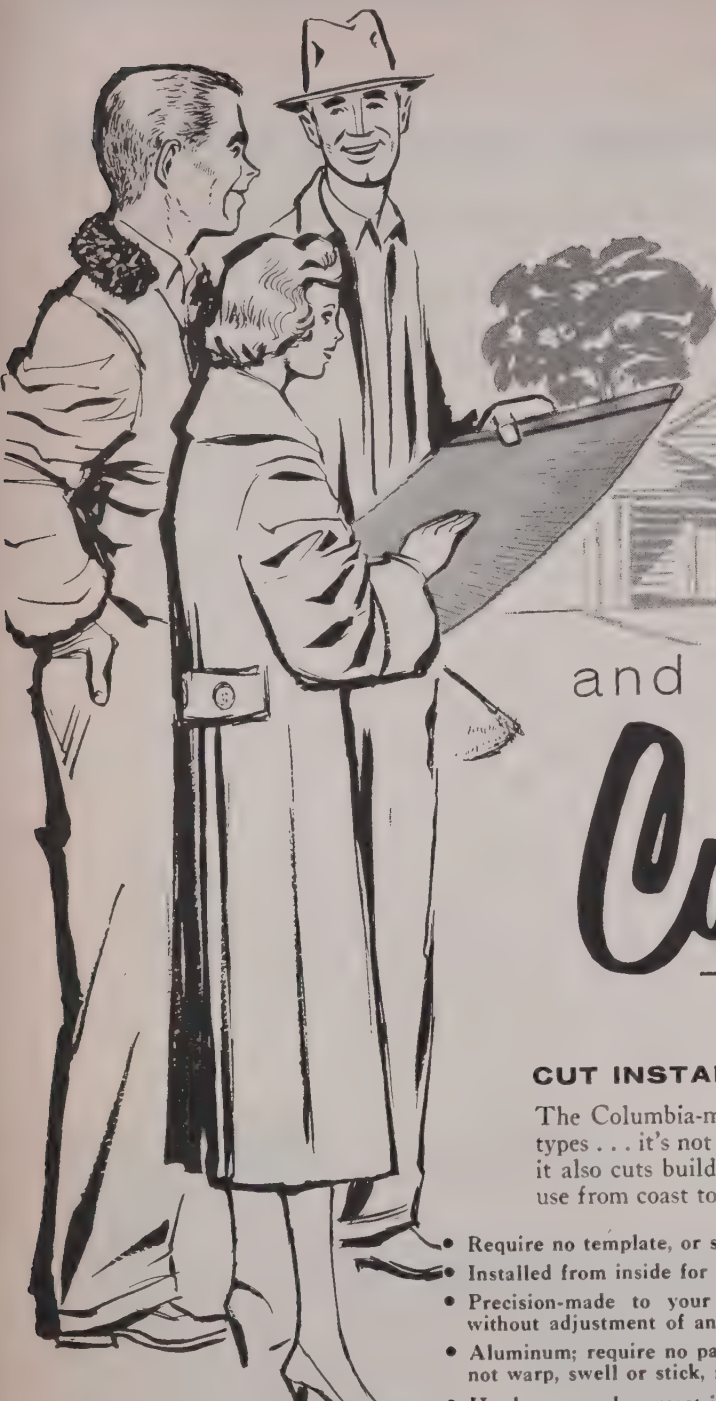
Photo-Art Commercial Studio



West Coast lumbermen swap grading names for numbers

Changing their lumber grading system from No. 1, 2, 3 and 4 to Construction, Standard, Utility and Economy was such a colossal job of industry reorientation that the West Coast Lumbermen's Assn. hired four Portland models to put some zing in the campaign. Clockwise from upper left: Miss Construction, Miss Standard, Miss Economy and Miss Utility. (The lumber retailer is Phil Miller.)

The association sent out 1 million words to the industry and public to tell of the change. The four lumber types are graded as before for strength, stress standards. Some changes: standard board thickness becomes $\frac{3}{4}$ "; standard width of nominal 6" material becomes $5\frac{1}{2}$ "; the West Coast Bureau of Lumber Grades & Inspections changes its name to West Coast Lumber Inspection Bureau.



for the
cost-conscious
builder

and his brand-conscious
customer . . .

Columbia-matic

TENSION SCREENS

CUT INSTALLATION COSTS across the board!

The Columbia-matic aluminum Tension Screen not only costs less than old-fashioned types . . . it's not only heavier constructed for longer service than competitive makes . . . it also cuts builder installation costs across the board. Here's why millions are now in use from coast to coast.

- Require no template, or special tools to install.
- Installed from inside for easy access to all windows.
- Precision-made to your specifications, fit exactly without adjustment of any kind.
- Aluminum; require no painting or finishing . . . will not warp, swell or stick, rust-stain your homes.
- Hardware can be preset in regular production schedule. Leave screens in cartons, safe from damage, for later installation.
- Sturdily packaged 6 of a size per fibreboard carton to protect against loss on the job or in warehousing.
- Easy to store, accurately labeled for quick identification.
- Cannot be taken down from outside . . . your protection against loss or theft on the job.
- Once installed, Columbia-matic TENSION SCREENS require no further adjustment—remaining drum-tight under all conditions . . . completely eliminate expensive "service callbacks."

CUSTOMERS RESPECT THE NAME . . . and love the performance!

Consistent, year-in-and-year-out advertising in leading national publications, plus word-of-mouth endorsement, have made Columbia-matic TENSION SCREENS a household word with home-buying and home-owning Americans. And like most famous brand names, Columbia-matic adds stature to the user and his project.

Equally important, the unusual quality of the Columbia-matic, its ease of use, dependability and many time, money and labor saving features are a constant reminder to your customers that he made a good purchase . . . an economical purchase . . . and a wise purchase.



LOOK FOR THIS SIGN OF SUPER SERVICE!

The sign of the FACTORY SERVICE DEALER for Columbia-matic TENSION SCREENS is your assurance of two important building plusses: (1) He will help you "buy right." To do this he carries a complete stock of wanted sizes and can provide emergency

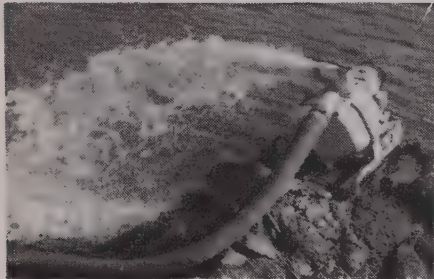
service on special sizes. (2) He will help you "cut costs." An expert on builder screening needs, he will show you installation short cuts that will save you time and money.

For complete details on the Columbia-matic TENSION SCREEN, consult your Factory Service Dealer, who is your local lumber or building material dealer, or write:

THE COLUMBIA MILLS, INC., DEPT. 53, SYRACUSE 1, NEW YORK

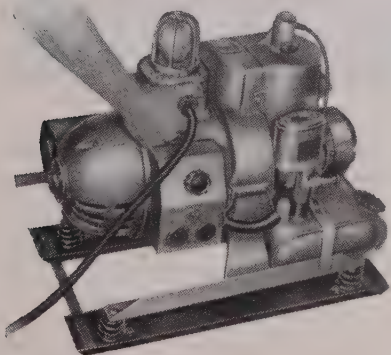
continued from p. 57

CHOOSE from a full line of HOMELITE Carryable Construction Equipment



SELF-PRIMING CENTRIFUGAL AND DIAPHRAGM PUMPS

Sizes: 1½" to 3" — capacities to 15,000
g.p.h. for dewatering and water supply.



ELECTRIC GENERATOR SETS FOR TOOLS AND LIGHTS

Complete range of sizes and voltages
up to 5,000 watts.



LIGHTWEIGHT POWERFUL ONE-MAN CHAIN SAWS

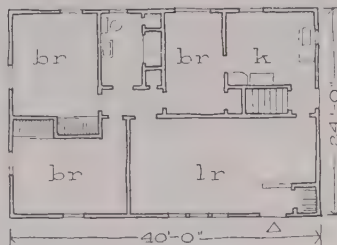
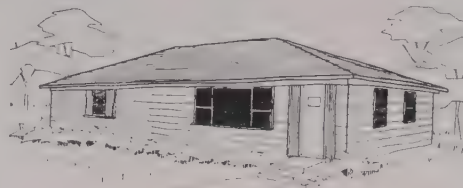
Complete line of saws with clearing and
brushcutter attachments for every
woodcutting job.

HOMELITE

A DIVISION OF TEXTRON AMERICAN, INC.
PORT CHESTER, N. Y.

on site and on the drawing boards. He concluded that today's basic minimum house (see sketch) has 960 sq. ft., three bedrooms and costs \$11,600, or \$12.08 per sq. ft. Thus the average size is up 33% from four years ago, but cost per sq. ft. has dropped 8%.

"More people have gone into the business



BASIC NEW HOUSE IN MINNEAPOLIS

and made competition here rugged," says Cusack. "The public won't buy two-bedroom homes and lenders generally want more than 900 sq. ft." Some other changes:

► Four years ago the basic house had 36 electric outlets costing an average \$275 for wiring and fixtures. Today's buyers want 60 outlets. Cost: \$450.

► Buyers demand more millwork — \$1,500 worth instead of \$705 worth.

► Buyers want more painting and decorations. These cost \$950 now as against \$525 four years ago.

Building costs in Detroit rise 3¾% in year

Home building costs in the Detroit area are up 3¾% from a year ago.

The Detroit Real Estate Board and the city's buildings and safety engineering department noted in their annual survey that the jump was much greater than the previous year's increase of 1.1%. Cost of commercial construction rose 4.6% last year.

Cubic footage costs for residences of one or one-and-a-half stories not over 18,000 cu. ft.:

MATERIAL	JAN. '56	JAN. '55
Brick	70¢	67¢
Brick veneer or stucco....	67¢	65¢
Frame	58¢	56¢
Cinder block	65¢	63¢

Producers give plastics short shrift, says expert

Structural plastics are not getting the attention they deserve from manufacturers serving the homebuilding industry. Plastics in building is a "large unexplored potential."

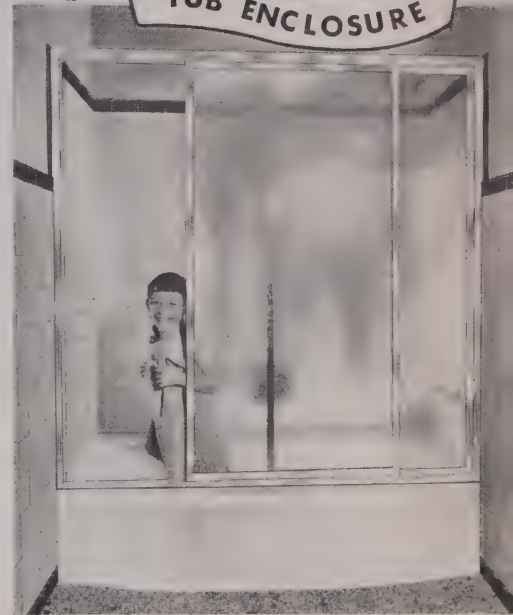
Designer George Nelson made this charge last month at a Society of the Plastic Industry meeting in Atlantic City. "We are considering developing a multi-domed roof of reinforced plastics," Nelson revealed.

continued on p. 65

Costs so little- Adds so much-

Beauti-Dor®

TUB ENCLOSURE



It pays to offer this new style, comfort and utility!

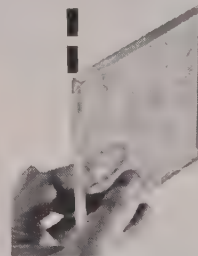
BEAUTI-DOR'S skyrocketing sales *prove* home buyers want the advantages of glass enclosed shower baths! Builders, who meet this demand, make their home sales easier and faster.

BEAUTI-DOR not only helps you sell, but you'll find in most cases, local evaluation will more than make Beauti-Dor worth your while.

Compare Beauti-Dor's quality with your cost and be amazed! Finest rustproof aluminum; **safe, double thick** translucent glass; double overhead, cadmium plated, ball-bearing rollers, by-passing panels. Shipped in one carton, completely assembled and glazed — ready to install. Height 59¼" Shipping wt. 95 lbs.

NATIONALLY ADVERTISED at \$74.95 in House Beautiful, House & Garden and Living For Young Homemakers, to give you brand name appeal.

NATIONALLY PROMINENT — Chosen for House & Garden's "House of Ideas" — selected for a "Living Conditioned Home" — specified by leading builders, architects, hotels and institutions



**BUILDERS' PRICE
IN QUANTITY LOTS,
AS LOW AS**

\$44.95

3½', 4', 4½', 5' size

**Beauti-dor
glass is twice as thick.**

SHOWER ENCLOSURES, INC. Dept.
4723 N. Pulaski Rd., Chicago 30, Ill. HH

Please send details and prices for BEAUTI-DOR. I
am a ☐ Architect ☐ Builder ☐ Dealer
☐ Distributor

Name _____

Company _____

Address _____

City _____ State _____



▲ *Strikingly Beautiful, V-Grooved Red Gum . . . excitingly figured in rich natural tones, this elegant hardwood is available for the first time in a prefinished paneling . . . at retail about 48¢ a sq. ft.*



◀ *Mellow, Satiny V-Grooved Birch . . . a soft, warm, satiny finish high lights the fine graining and natural growth characteristics of this classic all-hardwood panel . . . at retail about 54¢ a sq. ft.*

▶ *Lovely, Blond, Random Width Savannah Oak . . . a complete wall in a package. Pre-finished plywood planks in soft blond or honeytone. Carton includes clips and furring strips for exclusive easy application method. Matched mouldings and trim available. Blond at retail about 59¢ a sq. ft. Honeytone at retail about 54¢ a sq. ft.*



continued from p. 61



How to reduce concrete foundation costs shown in new booklet

Richmond Method fills need created by general swing to poured foundations

The unprecedented experimentation in the building materials field brought on by the depression years and the shortages of World War II is giving way to an increasing use of those materials and methods that have "stood the test of time." New materials and methods that have been tried and found wanting are being discarded.

In keeping with this trend is the great nationwide swing by merchant builders to poured concrete foundations. With the market demanding better foundations at less cost, the Richmond Foundation Method is becoming the accepted standard throughout the industry. In this method, the local lumber dealer supplies the complete "package"—lumber to build your own forms, or completed, re-usable panels for rent or sale, *plus* Richmond Snap-Tys.

The Richmond Foundation Method insures your obtaining maximum savings, rapid erection, fast stripping, clean wall faces and the best possible results generally with inexpensive, re-usable forms. A comprehensive "how to" booklet has been prepared giving detailed, easily followed information on this. It contains illustrations, diagrams and data on a large variety of forming methods including economical systems developed regionally.

All material and data given are based on extensive research as well as practical "on-the-job" experience. Forming plans are included for every size of light construction operation, including time- and money-saving plans for multi-unit developments where re-usable panels considerably reduce foundation costs.

Send for the Richmond Snap-Ty Form Handbook and see how the Richmond Foundation Method fills the need for a fast, truly economical concrete form erection method so necessary with today's high building costs. This information-crammed booklet is yours for the asking. Just mail the coupon below and start building *better forms at less cost*. Or write RICHMOND SCREW ANCHOR CO., INC. at 816 Liberty Avenue, Brooklyn 8, New York or 315 South Fourth Street, St. Joseph, Missouri.



See our products on exhibit at the NAHB Washington Housing Center.

Richmond Screw Anchor Co., Inc.
816 Liberty Ave., Brooklyn 8, N. Y.
Please send free copy of Richmond Snap-Ty Form Book.

Name.....Title.....
Firm.....
Address.....
City.....Zone.....State.....

"Whether this application is tested out or not depends, at this point, on whether we find a technically qualified manufacturer who is sufficiently interested in the experiment to collaborate. The example typifies our own considerable faith in reinforced plastics as materials with a large unexplored potential in building."

At the same meeting, Monsanto Chemical Co. hinted it may have a full-scale model of a wing of its molded plastics house (H&H, Dec. '55) ready for the Natl. Plastics Exposition in New York next June.

Plaster union, bosses acquitted in Chicago

Big Byron Dalton, the 59-year-old boss of Chicago's plastering industry, last month licked the government's second effort to pin an anti-trust rap on him, the Chicago Employing Plasterers Assn. and local 5 of the AFL plasterers union.

Not only did Federal Judge Joseph S. Perry's 25-page opinion give Dalton a clean bill of health. It said that by enforcing a three-coat plaster technique in the Chicago area Dalton was "in fact rendering a public benefit. . . ."



Dalton

Dalton is president of the Plasterers' Institute. Until recently, he was president of local 5. The government had accused the union and employers of conspiring to harass and bar out-of-state contractors and plasterers, and of suppressing local competition.

Judge Perry praised Dalton for his vigilance in enforcing specifications calling for three-coat plaster and said there was no evidence to justify complaints of contractors that he used coercive tactics to keep outsiders out. The court ruled that Dalton was right in insisting that a contractor stop using the double-back method of plastering—applying a second coat before the first is dry—on grounds that it was really only a two-coat job. Contractor George W. Humphrey of Hammond, Ind. testified that as a result he lost \$137,000 on the job.

On charges that Dalton once told a contractor that "in Chicago labor can get away with murder," the judge ruled: "At most he indulged in a colloquialism to impress [the contractor] with the current strong position of labor in the building trades."

Dalton, the union and employers group still face criminal anti-trust charges. But Judge Perry advised the government to forget about prosecuting this case. He also suggested the government drop similar civil and criminal anti-trust cases against AFL lathers and the Employing Lathers' Assn.

The government's anti-trust division has 60 days to make up its mind whether to appeal the plaster verdict. One spokesman pointed out that Judge Perry held in favor of Dalton once before and was overruled by the US Supreme Court on the question of whether interstate commerce was involved. But an appeal now would have to question Judge Perry's findings of fact.

NEWS continued on p. 69

SAVE SPACE ...

SAVE TIME ...

SAVE WORK ...

SAVE MONEY!

with...

MAGIC-FOLD
FOLDING DOORS AND DIVIDERS BY
CLOSURES, INC.
DETROIT, MICHIGAN

Covered with Genuine...

fashion

VINYL MATERIAL
THE GENERAL TIRE & RUBBER CO.

WIPES CLEAN ...
with sudsy cloth!

RESISTS ...
staining and scuffing!

WON'T ...
support combustion!

SEND
Coupon TODAY!

CLOSURES, INC.
533 E. Forest, Detroit 1, Mich.

Please send me complete information on your lines of folding doors and room dividers:

NAME.....
ADDRESS.....
CITY.....ZONE.....
STATE.....

HERE'S HOW TO SELL

Tie your name to this new



Whirlpool

a great new merchandising name
on products of the company
that has always given you more



MORE SALES APPEAL

Do you want to close your "deals" quicker? You can, if you include RCA WHIRLPOOL laundry equipment in the houses you build. RCA WHIRLPOOL appliances enjoy outstanding consumer preference — and it's easy to understand why! Women know that RCA WHIRLPOOL washers and dryers save them time and money — give them freedom from back-breaking washdays. So, let these "stars" put a twinkle in your prospects' eyes. Couple together the consumer demand for RCA WHIRLPOOL appliances with your homes for a double-barreled assault on your prospects.

MORE MODELS TO FIT YOUR NEEDS

Whether your homes are large or small, you'll find an RCA WHIRLPOOL model to fit your plans. From the top-of-the-line Imperial to the budget-priced Deluxe models, you'll have a wide selection of perfectly matched washers and dryers . . . all so beautifully styled they go with any home design. And, regardless of price, they add only a few cents a month to the package mortgage — another sales pointer for you.



BUILDER DIVISION

WHIRLPOOL-SEEGER CORPORATION, St. Joseph, Michigan

WASHERS • DRYERS • IRONERS • FREEZERS • RANGES • AIR CONDITIONERS

MORTGAGE MARKET:

Discounts drop about 1/2 point; outlook: more money at slowly rising prices

Firming of the mortgage market is now obvious. Prices for FHAs and VAs have climbed 1/2 point or better in the last two months, especially at the bottom.

Most activity last month was in immediate sales. Advance commitments remained hard to get at prices builders wanted to pay. Some mortgage bankers complained that the return of 30-year amortization was having a depressing effect on one segment of the market. Reason: more builders seemed willing to pay the 1/2 point extra (above 25-year prices) for the sales advantage of 30-year terms than there were lenders willing to take such loans.

The trend toward 3% interest on savings in New York banks (Bowery, the nation's biggest savings bank, Drydock, Union Dime and several others have just joined the parade) will accelerate the flow of money into mortgages—but at prices to produce high yields. New York mutuals should remain a prime outlet for 30-year, low-down payment paper.

Other mortgage lenders have more money to invest, too. Life insurance assets rose 2.6% in the last quarter of 1955, compared to 2.1% in the same period of 1954. Savings and loan assets are growing faster. Some experts think the cutback in auto production this year will free between \$1 and \$2 billion more for investment elsewhere. Less cars built means less cars to finance. Boston Banker Robert Morgan told the NAHB convention: "There will be ample money [for mortgages] and the housing industry is going to get some auto dough." Said Chairman William McChesney Martin of the Federal Reserve Board: "I haven't found any evidence that funds are unavailable for housing. There is not much evidence that tight credit is restraining housing."

Chairman Walter McAllister of the Home Loan Bank Board startled US Savings & Loan Leaguers with a prediction that more competition for mortgage loans because of the drop in housing volume could lead to a small decline in interest rates. Most listeners took this as a warning to S&Ls against jacking up interest on deposits.

Outgoing NAHB President Earl Smith told newsmen: "Discounts are not going to be too serious." One cloud on the discount horizon: Sen. John J. Sparkman (D, Ala.) and six other Democrats introduced a bill calling for a housing policy commission to study how to get enough money into homebuilding so discounts will vanish. Discounts, Sparkman insisted, "tend to negate public policy."



Flynn (l) and Baughman
Two kinds of mortgage progress

FNMA offers warehouse plan, pays first dividend

Federal Natl. Mortgage Assn. took three important steps to support mortgage buying.

1. It announced a repurchase option plan—tantamount to warehousing—under which a mortgage sold to Fanny May may be repurchased by the seller within 9 months at the same price. Fee for the service: 1 point. Explained FNMA's able president, J. Stanley Baughman: "This way builders will get more time to sell their mortgages on the open market."

2. It tapped the money market for \$100 million—mostly to pay off borrowings from the Treasury, thus putting Fanny May's secondary market operation another step on the long road toward private ownership. Its nine-month, 3 1/8% debentures (not guaranteed by the government) were offered at par. This was Fanny May's first trip into the money market for its secondary market operation. More are coming.

3. It declared two 17¢ dividends on its secondary market stock—the first since that

continued on p. 74

MORTGAGE MARKET QUOTATIONS

(Sale by originating mortgagee, who retains servicing.)
As reported to HOUSE & HOME the week ending Feb. 10

FHA 4 1/2s (Sec. 203) (b)

City	Minimum down*- 30 year		Minimum down*- 25 year		25 year, 10% down	
	Imme- diate	Future	Imme- diate	Future	Imme- diate	Future
Boston local	a	a	a	a	a	a
Out-of-state	97-98	97-98	97-97 1/2	97-97 1/2	a	a
Chicago	98-98 1/2	98-98 1/2	98-99	98-99	98-99	98-99
Denver	a	a	99	98 1/2	99-par	98 1/2
Detroit	96-97	96 1/2	97-98	97 1/2	98-99	98
Houston	97	a	97 1/2-93 1/2	a	99-par	99-par
Jacksonville	97	97 1/2	97-98	97	98-99	98-99
New York	99-par	99-par	99-par	99-par	99-par	99-par
Philadelphia	par	par	par	par	par	par
San Francisco	99-par	a	par	98-par	par	99-par
Wash., D.C.	98 1/2	98	99	98 1/2	99	98 1/2

*7% down on first \$9,000.

SOURCES: Boston, Robert M. Morgan, vice pres., Boston Five Cents Savings Bank; Chicago, Maurice A. Pollack, vice pres. & secy., Draper & Kramer, Inc.; Denver, C. A. Bacon, vice pres., Mortgage Investments Co.; Detroit, Stanley M. Earp, pres., Citizens Mortgage Corp.; Houston, Donald McGregor, exec. vice pres., T. J. Bettes

Co.; Jacksonville, John D. Yates, vice pres., Stockton, Whatley, Davin & Co.; New York, John Halperin, pres., J. Halperin Co.; Philadelphia, Robert S. Irving, exec. vice pres., W. A. Clarke Mortgage Co.; San Francisco, Raymond H. Lapin, pres., Bankers Mortgage Co. of California; Washington, D. C., George W. De Franceaux, pres., Frederick W. Berens, Inc.

VA 4 1/2s

City	30 year, no to 2% down		25 year, 2% down		5% down or more 25 yr.	
	Imme- diate	Future	Imme- diate	Future	Imme- diate	Future
Boston local	par-101	par-101	par-101	par-101	par-101	par-101
Out-of-state	96-97	a	96-97	96-97	a	a
Chicago	a	a	a	a	98-99	98-99
Denver	a	a	98 1/2	98	99 1/2	98
Detroit	95-96	95	96-97	96	97-98	97
Houston	96-97	a	96 1/2-97 1/2	a	98-99	98-99
Jacksonville	96-97 1/2	96-96 1/2	97-98	97	98-99	98-98 1/2
New York	99-par	99-par	99-par	99-par	99-par	99-par
Philadelphia	99	99	99	99	99 1/2	99 1/2
San Francisco	95 1/2-96 1/2	95-96	95 1/2-96 1/2	95-96	97-98 1/2	96-97
Wash., D.C.	96 1/2	96	97	96 1/2	98-99	97 1/2-98

► Immediate covers loans for delivery up to 8 months; future covers loans for delivery 8 to 12 months.

► Quotations refer to prices in metropolitan areas; discounts may run slightly higher in surrounding small towns or rural zones.

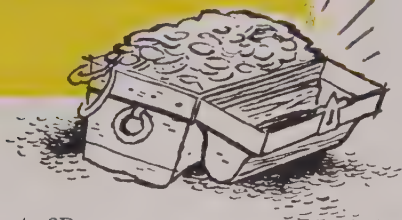
► Quotations refer to houses of typical average local quality with respect to design, location and construction.

NOTES: a—no activity. b—very limited market at this price.

DUR-O-WAL[®]

Is Your

**BURIED
Treasure**



Phone, wire or write Dept. 2D today, for complete information on Dur-O-wal... the original steel reinforcing member designed to combat cracking of masonry walls. To add structural soundness and to preserve the beauty in the buildings you construct, insist on Dur-O-wal.



Dur-O-wal lies flat in the mortar bed . . . handles fast . . . saves time . . . provides crack control for every type of masonry wall.

Butt-Weld • Trussed Design

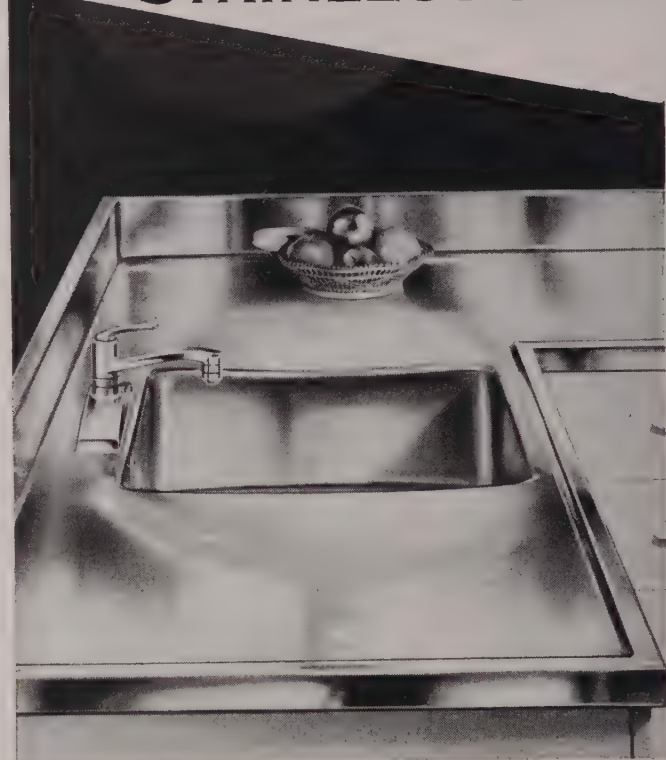
DUR-O-WAL[®]

**the Backbone of Steel
for EVERY masonry wall**

Dur-O-wal Div., Cedar Rapids Block Co., **CEDAR RAPIDS, IA.** Dur-O-wal Prod., Inc., Box 628, **SYRACUSE, N.Y.** Dur-O-wal of Ill., 119 N. River St., **AURORA, ILL.** Dur-O-wal Prod. of Ala., Inc., Box 5446, **BIRMINGHAM, ALA.** Dur-O-wal Prod., Inc., 4500 E. Lombard St., **BALTIMORE, MD.** Dur-O-wal Div., Frontier Mfg. Co., Box 49, **PHOENIX, ARIZ.** Dur-O-wal, Inc., 165 Utah St., **TOLEDO, OHIO**

THE *best*
SINKS ARE

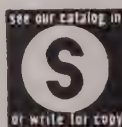
STAINLESS SINKS



AND
THE *best* **STAINLESS
STEEL SINKS ARE
MADE BY JUST!**

STANDARD SIZES or BUILT TO ORDER

Write for FREE Descriptive Bulletin J-113



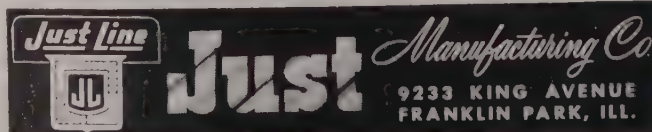
NAME _____

FIRM _____

STREET _____

CITY _____ STATE _____

FACTORY REPRESENTATIVES IN ALL MAJOR CITIES





it's a *Caloric* "built-in" for
the house that **HOME** built

EXAMINE ITS BUILT-IN BEAUTY AND CONVENIENCE, YOU'LL SPECIFY ONE TOO!

Only natural! The designers of the fabulous new house planned by the great NBC network TV show, HOME, as a showcase for all that's new in modern living have chosen Caloric! They know that Caloric Built-in gas ranges give distinctive style and step-saving compactness to any kitchen.

LOOK at the all-new 4-burner top unit. It's porcelain-finished in white, black or copper-tone, or in the pastel shades: green, yellow, blue, pink. It's available too, in popular satin-metal finish.

LOOK at Caloric's wonderful advance in modern cooking: THERMO-SET! It's the thermostatically controlled top-burner that eliminates burning, scorching, boilovers! Keeps food temperature where you set it!

LOOK at the separate oven-broilers; they can be installed at any height. No more stooping, thanks to Caloric's eye-level controls.

Just look, and you'll know why now, more than ever, in the homes of today, the call's for Caloric! Send in the coupon for specifications and full details.



CALORIC BUILT-INS NOW FEATURE THERMO-SET

Just turn the automatic dial to the desired temperature. The THERMO-SET Sensing Element presses against the bottom of the cooking vessel and keeps the food temperature constant . . . automatically.

Caloric Appliance Corporation
Dept. HH

Topton, Pennsylvania

Please send me more information with
specifications on the new Caloric built-
in gas range.

Name _____

Address _____

City _____ Zone _____ State _____

CALORIC APPLIANCE CORP., TOPTON, PA. • RANGES • DRYERS • BUILT-INS • DISPOSERS





Van-Packer Chimney blends with all homes. Note how the housing harmonizes with brick trim of home above.

Only Van-Packer Chimneys give permanence of masonry plus economy of pre-engineering

You can be sure of chimney safety and permanence—and enjoy the savings of a pre-built product—when you specify the Van-Packer Packaged Masonry Chimney for the homes you build. Van-Packer flue sections have $\frac{5}{8}$ " fire clay tile liner, 3" vermiculite concrete insulating wall, cement-asbestos jacket.

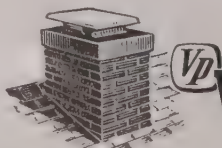
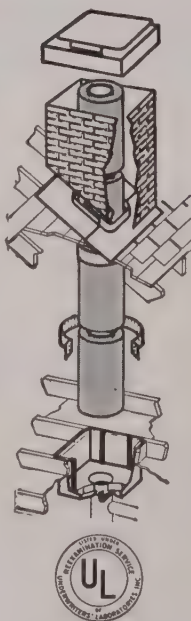
Completely packaged including flashing, the Van-Packer Chimney goes up in 3 hours or less and saves you 20-40% over brick.

Brick-panel housing adds beauty to all homes, assures buyer acceptance. Housing is now available in a choice of colors—red, buff or white—at no extra cost.

Ceiling or floor suspended Van-Packer saves space, lets you locate furnace anywhere. Van-Packer Chimney gives greatest draft for best furnace operation.

UL listed for all fuels, for all home heating plants and incinerators; approved by major building codes.

Immediate delivery to job from your local heating jobber or building material jobber. See "Chimneys—Prefabricated" in yellow pages of classified phone book, or write Van-Packer Corp. for Bulletin RS-1-19.



Van-Packer PACKAGED MASONRY Chimney

Van-Packer Corporation • Bettendorf, Iowa • Phone: Davenport 5-2621

operation was reconstituted in 1954. The \$100-par shares had been selling on the over-the-counter market around \$54 or \$55. Fanny May officials predicted the dividends would boost the price toward \$75. If they are right, it should encourage more builders to sell mortgages to Fanny May, despite its 3% stock purchase requirement. The 17¢ dividends were for January and February. Fanny May plans to maintain the rate, which would mean a \$2.04 annual dividend.

Ford pension fund buys block of prefab VA loans

National Homes Acceptance Corp., financing arm of the National Homes prefab outfit, has sold a "several million dollar" block of VA mortgages to the Ford Motor Co. pension fund.

This may or may not be a significant breakthrough for mortgage men who have been trying to tap the growing pool of investable funds (over \$30 billion currently) in private and governmental pension plans.

Executive Vice President Frank P. Flynn of National Acceptance said he regarded the Ford pension purchase as "experimental—so far." But he added: "When one comes in, the rest will."

Key to the deal was New York's Chase-Manhattan Bank. The Chase trust department handles the Ford pension account. Chase's real estate department has long experience in managing a portfolio of VA mortgages. Most pension fund managers shy away from mortgages because 1) as bondmen they are not familiar with mortgages and 2) they are not set up to service them, even in a head office role. Chase, of course, just turned the servicing arrangements over to its mortgage experts.

Congress urged to outlaw S&L holding companies

Congress should outlaw holding companies for savings and loan associations, says the US Savings & Loan League.

This stand, said Henry A. Bubb of Topeka, Kan., former US S&L president and now chairman of its legislative committee, aims to insure that savings and loans will remain "locally owned, locally-operated and locally-managed."

Bubb noted "there has been some concern" among savings and loan men since the organization last June of the Great Western Corp. by Lehman Bros., New York investment banking house. Last July, Great Western bought control of the Great Western S&L of Los Angeles and 22 subsidiary companies. The price, \$10,473,628, was borrowed "from a bank acting as agent for an institutional investor," according to records of the Securities & Exchange Commission. Lehman planned to refund the \$10 million purchase price by selling 500,000 shares of capital stock.

What bothers S&L leaders, as one put it, is that such deals tend to "turn the savings and loans from a community operation to a holding-company-controlled national financial institution."

If such a setup became widespread, some S&L leaders fear, it might jeopardize the preferential income tax treatment S&Ls get on the basis that they are normally mutually-owned.

The US League merely juggled another hot potato. It asked the Home Loan Bank Board to hold up action on two proposed rules which would effectively bar S&Ls from converting from federal mutuals to state-chartered stock companies (Feb., News).

Builder Mark Taper buys a western S&L empire

Mark Taper, who built thousands of California homes during the postwar housing spree including Los Angeles' mammoth Lake-wood Village, has just bought himself control of the fifth largest savings and loan empire in the nation.



Taper

His newest acquisition—second in a month—is the Pioneer Investors S&L of San Jose, oldest (71 years) in California. It has branches in nearby Oakland, Hayward and Sunnyvale, and in Willow Glen, Los Gatos and Monterey. It has assets of \$71,786,000 and, more important, statewide lending authority.

A few weeks earlier, Taper and associates Arch MacDonald, Oakland attorney, and Reece H. Dorr, executive vice president of the American S&L of Whittier, acquired control of Berkeley S&L with assets of \$21,328,000 and branches in Walnut Creek and Centerville (Feb., News). Taper already controlled American S&L (assets: \$86,606,000), formed by a December merger of Whittier S&L, American and Redondo Beach and Inter-Valley S&L at Montrose. So his savings and loan holdings now total \$179,720,000, or fifth in the US.*

Industry opposition

Many a giant builder—and Taper easily rates that label—has set up a mortgage banking company. But Taper is probably the first to go into the savings and loan field in such a big way. It is also noteworthy that he has put his new lending empire together at a time when the US Savings & Loan League (see p. 74) has just urged Congress to forbid chains of savings and loans. It is problematical whether Taper's operation would be affected if Congress does pass such a law. Milton Shaw, California S&L commissioner, points out that since Taper owns the controlling stock directly (all three associations are state-chartered) and not through a holding company, he might well be untouched. There are no laws governing how much stock a person may own in an S&L or how many he may control.

Will quit home building

Taper says he will quit home building as soon as his current crop of subdivisions are finished. His last tract in southern California, Parkwood in Pomona, is almost sold

continued on p. 78

* Four biggest S&Ls and their assets: Home of Los Angeles, \$300 million; Coast Federal in Los Angeles, \$220 million; Perpetual in Washington, \$217 million; Twin City Federal in Chicago, \$216 million—all as of Dec. 31. Next, First Federal of Chicago, \$179.1 million.



Add High Fashion to Your Kitchens and Baths with **MOEN**[®] Faucets

THE NEWEST PLUS SALES FEATURE—A distinctive appointment in any kitchen or bath... MOEN one-handle faucets! Only one handle, so easy to use. Just the touch of a finger and you have any desired temperature at the pressure you want.

Setting a new plumbing standard—Forerunner of a new trend, Moen is the first new development in faucet principle and design in over 50 years.

Moen elegance isn't just on the outside, either. It has lasting value inside, too! Water flow control by stainless steel piston closing with, instead of against, water pressure and double sealed with special neoprene 'O' ring and teflon packing, Moen faucets will not drip or leak!

Moen is easy to install and service. There's a model to fit every conventional sink or lavatory, and all working parts are interchangeable in all models. No cross-piping is necessary with Moen. Simply rotate the handle 180° to reverse 'hot' and 'cold'.

Styled for today—and tomorrow—all Moen faucets are equipped with swingspouts and aerators, are modern and functional, easy to clean.

Every MOEN carries a 20-year parts warranty. Truly the finest faucet ever made is the new one-handle MOEN. One handle does the work of two at the touch of a finger. Join the high fashion trend with all America... to MOEN.

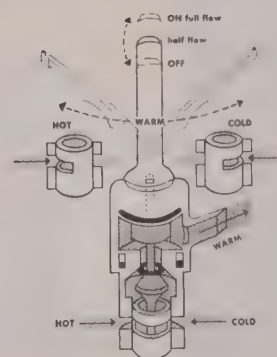
Now manufactured in centrally located Elyria, Ohio; soon to be stocked in all major markets!

THE ORIGINAL ONE-HANDLE MIXING FAUCET

MOEN VALVE COMPANY

Division of Ravenna Metal Products Corporation P.O. Box 280 Elyria, Ohio

6518 RAVENNA AVENUE, SEATTLE 13, WASHINGTON



Cutaway drawing showing how MOEN piston controls water mixing and flow



LAPPED SIDING

8' planks, varying widths, $\frac{3}{8}$ " or $\frac{1}{4}$ " thick. FHA approved.



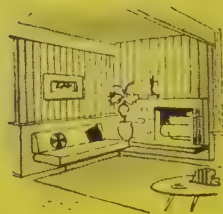
GROOVED SIDING

4' x 8' panels, $\frac{3}{8}$ " siding over lumber meets FHA specifications.



GABLES

Completely weatherproof, smooth, even appearance lasts and lasts.



INTERIOR PANELING

For rooms that get hard wear. Ideal in dens, playrooms, clubs, etc.

HARBORITE[®]

the miracle overlaid fir plywood—super-resistant to wear, weather and water



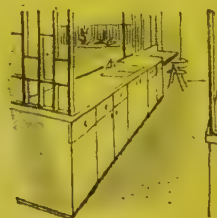
PANEL SIDING

4' x 8', or oversize panels. Superior for board and batten.



SOFFITS

Workability of Harborite makes it easy to cut to irregular shapes.



KITCHEN CABINETS

Faces finish beautifully. 4' x 8' panels in $\frac{1}{4}$ ", $\frac{3}{8}$ ", $\frac{1}{2}$ ", $\frac{5}{8}$ ", $\frac{3}{4}$ ".



BUILT-INS

Harborite ideal for cabinetry, built-ins, doors, paneling, etc.

An Important Announcement

HARBORITE...MULTI-USE PANEL...NOW REDUCED 20%* COMPETITIVE WITH FINEST MARINE TYPE FIR PLYWOODS

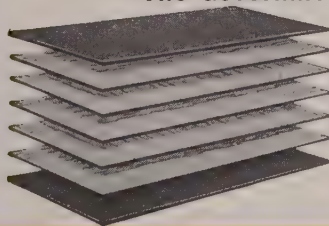
For fifteen years, Harborite, the lumber industry's first and finest overlaid fir plywood, has gone almost exclusively to the U.S. Government. Now, new production techniques make it possible to offer Harborite in unlimited quantities to the building industry. This super-strong, lightweight, structural panel with weather-proof, split-proof, check-proof qualities has a multitude of uses for better construction. Harborite's hard, smooth, grainless face is the perfect paint-holding surface; grain-raise problems are minimized.

*warehouse prices...vary slightly in each market.

Build it Better! Harborite is stronger than steel...super resistant to wear...and impervious to weather and moisture. Harborite will last a lifetime...will continue to look fresh and new.

Save Money! These large, lightweight panels are easy to handle, easy to work. Harborite cuts labor and paint costs to the bone! Harborite's absorption-resistant surface uses less paint. Try two coats where you would ordinarily use three...but expect the paint finish to last longer...look better!

The Government specifies vast quantities of Harborite...here's why!



1. Only select Douglas Fir veneers are used in Harborite.
2. Core veneer strips are machine-edged and butted tight.
3. All solid wood—no core voids—no flaws.
4. Harbor-developed waterproof glue makes a permanent weld.
5. Core panels are rehumidified to minimize warping and grain-raise.
6. Harborite's resin-impregnated overlay makes a perfect paint-holding surface.

HARBORITE



...from the Royal Family of Plywoods!

HARBOR PLYWOOD CORPORATION, Aberdeen, Washington

Sales Offices and subsidiaries in...

ABERDEEN, Washington, P. O. Box 940, Phone 221
ATLANTA, Georgia, 1161 Ridge Ave., SW, LA 0215
CHICAGO, Illinois, 1444 W. Cermak Rd., CA 6-0134
CINCINNATI, Ohio, 511 Baymiller St., MA 1-2797
HOUSTON, Texas, 303 St. Emanuel St., CA 7-8241

INDIANAPOLIS, Indiana, 1001 E. New York St., ME 7-3434
JACKSONVILLE, Florida, 2355 Dennis Street, EL 4-8229
LOS ANGELES, California, 235 South Alameda St., MI 1854
SAN FRANCISCO, California, 3095 Third St., VA 6-2411
SEATTLE, Washington, North 34th & Fremont, EV 2228
TAMPA, Florida, 802 No. Rome Ave., Phone 8-1868

continued from p. 75

out. Several in northern California are nearly completed. (Last year, Taper, with various associates, built between 750 and 1,000 homes, he says.) Taper still retains his joint interest (with Lou Boyar and Ben Weingart) in Lakewood, including such profitable items as the shopping center and water company. Whether Biltmore Homes, his construction company, will be continued by others is still undecided.

Back to first love

"In my mellow years," the 54-year-old Taper told a *HOUSE & HOME* correspondent last month, "I am returning to my first love—mortgage banking. . . . I have felt for some time that a man with my practical experience in building can assist builders and developers. I feel I will be able to help them avoid many of the pitfalls. Too few lenders and banking institutions have had any real construction experience."

Many of Taper's fellows in building and lending profess to see fabulous profit possibilities for Multi-millionaire Taper in S&Ls. Says one Los Angeles builder: "Taper sees that the margin of profit is moving from the builder to the mortgage banker on discounts and from there to the lender. He has decided to move along with it. Mark always operated on the theory that he gave houses away so he didn't need to spend much money for design or construction. But the profits from such savings dwindle when you have to pay an 8-point discount."

Land speculation?

Another interesting possibility lies in the California law which permits state S&Ls to invest in land (up to 5% of their assets) or even go into homebuilding on their own account—for veterans. Notes one shrewd observer: "The time has come when it is more profitable to develop and sell lots than to buy land, develop it and build houses on it."

On such matters, Taper has maintained a discreet silence. But silence amounting to a penchant for avoiding the public eye has been the way Taper has operated since he came to the US from Britain 16 years ago.

Sydney Mark Taper, a balding, grey-haired gentleman of medium height, grew up in West London, attended St. Anne's Church of England school, built homes in southeast London before World War II. His British accent is matched by his dignified charm and conservative dress—typically an impeccably tailored grey suit, white shirt and small figured tie.

Man of mystery

Taper is a mysterious figure even within the close-knit building fraternity. "No one that I know has even met him," said one home building official last month. "He is hard to keep track of," said a Los Angeles businessman. "He will work 16 hours a day. He is always making a deal, and he always gets the best of everyone. He arrived from England with \$1½ million and today he's worth \$50 million if he's worth a cent." Taper declines comment on this.)

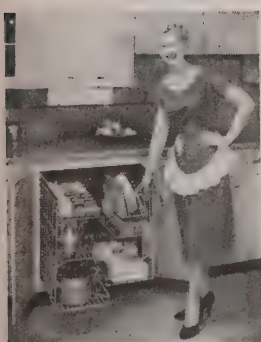
Taper has admirers, too. Says one S&L official: "Taper's reputation in our business is that he runs a very clean shop. He operates rigidly within the savings and loan law."

Says Taper: "It is in this field that I really feel I will be able to render my best service to all."

NEWS continued on p. 83



5 more reasons why KITCHEN MAID is the BUILDER'S KITCHEN!



Paper, pot 'n pepper base—two slideaway wire cradles bring contents of base cabinet into easy reach. Highly versatile, solves many troublesome storage problems.



Sliding Glass Doors—door sections glide easily on roller bearing slides, may be quickly removed for washing. Metal channel also can be removed without tools for cleaning.



Adjustable Wire Shelves—can be adjusted to varying levels without removing from the cabinet, even when well loaded. Adjust by one-inch increments.



Knife Nook—compact pull-out drawer containing slotted partitions to accommodate a complete carving set. Cork drawer bottom provides protection for cutlery.



Condiment Nook—holds a full dozen standard spice containers with plenty of room left over for other small, hard-to-store cartoned items.

The Kitchen Maid Corporation
463 Snowden Street, Andrews, Indiana

Please send new booklet showing 10 practical kitchens with details of the complete Kitchen Maid line.

I am an ☐ Architect ☐ Builder ☐ Dealer

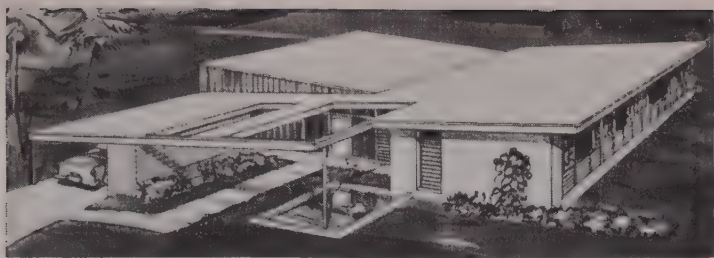
Name _____

Street _____

City _____ State _____

Mail coupon today
for complete details!

KITCHEN MAID
FIRST AND BEST IN
KITCHENS
OF WARM AND FRIENDLY WOOD



Homestead Air Force Base south of Miami will get this four-bedroom model for colonels designed by Architect Norman M. Giller. Giller designed homes for a previously-announced 84-unit direct appropriation project, added more models when Title VIII came through.



Captains, lieutenants and warrant officers will live in these three-bedroom homes designed by Giller. All houses will have carports and terraces. This model includes space for a garden. The living-dining area is about 315 sq. ft. Carport has 50 sq. ft. storage space.

MILITARY HOUSING

Builders fear new program will swamp market; critics say interest is too high

The revised Title VIII program for gearing private building and financing to military housing through FHA is becoming controversial on two fronts.

Controversy No. 1: is the Pentagon programming so many houses in some areas that they will swamp the normal market for private new housing? NAHB has officially expressed fears that it may.

Controversy No. 2: is the 4% interest rate too high for a military mortgage? The argument is that in its new form, FHA Title VIII paper has security close to that of a government bond. Some experts thought the new mortgages sounded so airtight that they would probably command a premium in a market where much other FHA paper was selling at two to three points discount.

NAHB for more controls

Builders' worries over what used to be known as Wherry Act but now is called Capehart Act housing led NAHB directors to adopt this resolution as part of the association's policy statement:

"The military housing program now getting under way lacks controls to prevent excessive programming. This may ruin the housing economy in some localities near military installations. The act should be

amended to require prior specific approval of each project by a Congressional committee."

Builders' big concern is that the Pentagon will ride roughshod over market estimates of FHA, as the law empowers it to do. This is caution born of painful experience with Wherry Act and defense housing projects which went sour when personnel levels at some bases did not live up to Pentagon promises.

It is no comfort, either, that about 30% of the projects discussed locally so far by FHA district offices and base commanders have been referred to FHA in Washington for mediation on how many units are justified. Bruce C. Kixmiller, FHA special assistant for armed services housing, told HOUSE & HOME that so far the Defense Dept. has not overruled FHA headquarters on the number of units for any base. But FHA has agreed to raise its field men's estimate in some cases. In others, it has cut what Defense wanted and the Pentagon has agreed. At Sandia Air Force Base near Albuquerque, for instance, the military's original demand for 1,200 units was sliced to 318.

Capehart Act military housing is a big program. By June 30, the Pentagon estimates, it will have earmarked all 100,000

of the units now authorized. So far, 59 projects involving 37,000 units have been approved. Of these, 42 are Air Force projects, 13 Army and four Navy. All are for officers or high-rank enlisted men.

New kind of hybrid

Capehart housing is also profoundly different from its predecessor Wherry housing—or anything else FHA has ever insured. For one thing, the program has been widely attacked as a subterfuge to avoid raising the national debt. Said one mortgage banker: "This is government running in a circle, guaranteeing, insuring and lending to itself."

It is the differences that lead some experts to question whether the 4% interest rate is too high. They argue this way: the mortgage lender takes little of his ordinary risk since the Defense Dept. assures payments and even guarantees that the delay and expense of foreclosure to get FHA to pay off in debentures will be avoided. Moreover, since the military will operate and maintain the project (with appropriated funds) and supervise construction there is little management expense for the lender.

Military men expect to pay off the mortgages in 18 years rather than 25. To do so, they will collect \$90 in withheld quarters allowances for every \$80 due on the mortgage. The money will go into a pool, giving the Pentagon a cushion if a few projects get big vacancies because military plans change. So the argument is that Capehart housing is much like a 20-year government bond. Twenty year bonds pay about 2.86%.

continued on p. 86



First contract to build Capehart Act military housing was let at Abilene (Tex.) Air Force Base. Low bidder for the 944 units was a combine: C. H. Leavell Construction Co. and Don Ponder, both of El Paso. Their \$12,493,974 bid is \$13,235 per unit (not including

land)—a little under the legal ceiling of \$13,500.

The houses were designed by Associated Architects & Engineers of Abilene, composed of F. C. Olds Co. and David S. Castle Co. of Abilene, Leonard Kanto of Ft. Worth and C. A. Johnson of Houston.

here's how **COOLING TOWERS** sell more air-conditioned homes...

**HALSTEAD
and
MITCHELL**

SAVES 95% on air-conditioning WATER BILLS!

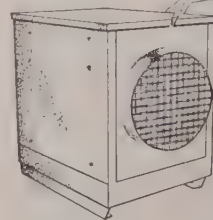
Halstead and Mitchell Residential Cooling Towers, the first cooling towers designed and priced for the home market, actually slash air-conditioning water bills by over 95%! They accomplish this major saving by recirculating precious cooling water—at the same time maintaining the full air-conditioning efficiency possible only with water-cooled systems.

Because these are induced draft units, they may be placed out of sight. They will in no way interfere with building landscaping. Halstead and Mitchell Residential Cooling Towers are built in a complete range of sizes from 2 through 7½ tons. In any size, their low-cost maintenance and operation provide a considerable sales incentive for home and small building air-conditioning.

20-Year Guarantee! on the wetted deck surface

There's nothing experimental about these units. Quality features of famous Halstead and Mitchell Industrial Cooling Towers have been incorporated, making possible an exclusive 20-year guarantee on the wetted deck surface against attack by rotting or by fungus. The cabinets have multi-protective coatings, the fans are of stainless steel; all of which adds up to many years of trouble free life.

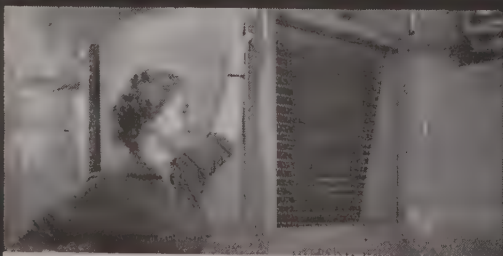
At Leading Heating
and Refrigeration
Wholesalers Everywhere



Write for BULLETIN RE-1

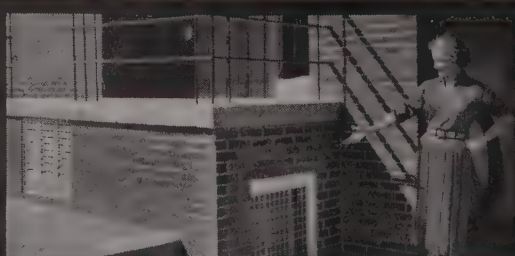
HM
Halstead & Mitchell

BESSEMER BUILDING • PITTSBURGH 22, PA.



Here H&M Residential Unit is installed in small chamber under front steps of home.

**Halstead & Mitchell
Induced Draft
Cooling Towers
can be tucked away
to enhance landscaping**



Small grilles for air exhaust and air intake are only external evidence of cooling tower!

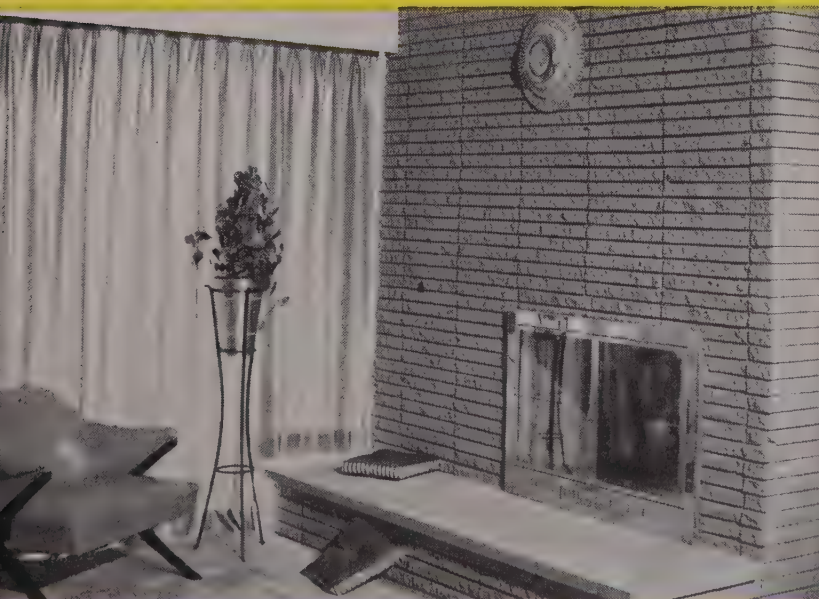
Inside, outside, all around the house



it's Versatile Concrete Masonry for



low-cost modern living



Ask your local block producer to show you the wide range of attractive new patterns and sizes available. He's a member of NCMA and a good man to know.
NATIONAL CONCRETE MASONRY ASSOCIATION • 38 SOUTH DEARBORN • CHICAGO



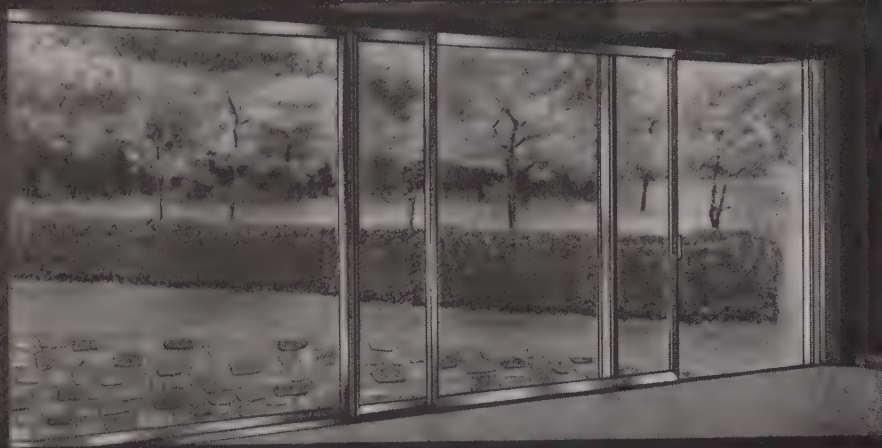
continued from p. 83

Glamour

ALUMINUM SLIDING GLASS DOORS

To really appreciate their
outstanding value...

**PLEASE—Compare them
only with the
most expensive units!**



These are but a few of
GLAMOUR'S features...

- GLAMOUR Sliding Glass Doors are available K.D. in multiples of 3 ft. (6-9-12, etc.) or 4 ft. (8-12-16, etc.). 6'9 1/4" overall rough opening height. No extra mullions needed in any of our multiple door units.
- 6063-T5 Satin finish, thick aluminum — heat treated, rustproof — protected against moisture, abrasion and staining by our own "Glamourized" process.
- Full width jambs. Square tube door frame sections for full strength and rigidity. Mitred corners assembled with heavy wrought aluminum angles.
- Bottom mounted adjustable ball-bearing rollers.
- Stainless steel roller track for life-time wear.
- Fool-proof cadmium plated adjustable latch.
- Unique, stay-put wool pile weather-stripping, adjustable to seal at all times regardless of the level of the door or sill. Twin-sealed at locking stile and jamb. Weather-stripping replaceable without dismantling door.
- Glass set in vinyl channels—ELIMINATES PUTTY! Glass is installed from interior with easily removable aluminum bead — ideal for multiple story structures.
- For single glazing (3/16", 7/32" 1/4"). Double glazing (1") units available.
- Top hung extruded aluminum framed screens (optional at extra cost), completely assembled with fly strip.

*Only Glamour
offers custom quality
at standard prices!*

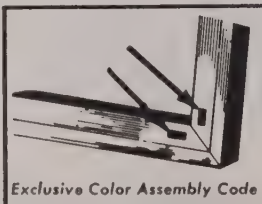
\$154⁹⁵

6 Foot Unit
LIST PRICE

**WITH FREIGHT
PAID TO YOUR SITE —
COAST TO COAST!**



Exclusive Organized packing



Exclusive Color Assembly Code

**AND YOU SAVE ON THE JOB
WITH THE EASIEST INSTALLATION
OF ANY SLIDING DOOR!**

With GLAMOUR'S "Organized packing" and "color assembly code," you are assured faster assembly and quicker installation than any other door. You receive 3 individually wrapped packages within one master shipping carton. Package 1 contains the outer frame; package 2 contains the stationary panel; package 3 contains the sliding panel. Each package is complete with its own hardware and screws for assembly — all parts are color coded on the corners for easy matching. GLAMOUR costs less to buy . . . less to assemble . . . less to install! Write for complete details now.

Please send me complete information and prices for
GLAMOUR Aluminum Sliding Glass Doors. I am a
.....ArchitectBuilderDistributor.

NAME _____

ADDRESS _____

COMPANY _____

CITY _____ STATE _____

Glamour

GLASS WALL-DOR CORP.
4723 NORTH PULASKI ROAD
CHICAGO 30, ILLINOIS

How do builders and realtors across the nation feel about it?

"It would hurt us very seriously," said a builder in Fayetteville, N.C., commenting on a 2,000-unit project set for Ft. Bragg. "We're selling about what we can build now and we're building all the houses they [the military] can absorb."

Worries elsewhere: some FHA offices were cutting back commitments to private builders while taking a new reading on what the military program will mean; the military jobs may cut into local labor supplies.

But a survey by HOUSE & HOME of the market near nine of the biggest military projects indicates that pessimism is the exception, not the rule. In some spots the homebuilding industry will not be hurt because it hardly exists. In others, the expected influx of military personnel is so large that a good portion of it is expected to spill over into off-base housing.

The problem in each area varies. The

continued on p. 93

HOW IT WORKS: DEFENSE TAKES OVER THE MORTGAGES

Here is how the new military housing program authored by Sen. Homer Capehart (R, Ind.) works:

► If Defense wants to insist on more units at any base than FHA thinks the market can absorb, FHA can require the Pentagon to guarantee the "extra" units.

► Projects ready to go are shopped out to a local architect for designing. When plans are completed, the military will get from FHA an appraisal and eligibility statement. The law limits average per unit costs (not including land) to \$13,500—compared to \$9,000 under the old Wherry Act. Bids are taken by local Army engineers. The low bid becomes the amount of the mortgage. The winner must organize a Delaware corporation with \$1,000 capital stock, domesticate it in the state where the project lies. Then he can arrange for a 100%, 25-year mortgage (but not more than his bid).

► When the project is finished, the military will take it over, guarantee all notes and other indebtedness of the mortgagor and undertake to pay off the mortgage and maintain the property.

► Since all Capehart housing will go on military-owned land, officials will have power to designate it as official quarters. This means the armed services can order their men to occupy the dwellings, deduct quarters' allowances from pay. Moreover, the military will be able to furnish the units (it could not under the Wherry Act). Lumberman Frank M. Ewing, deputy ass't. defense secretary, figures the cost of furniture will be offset by what the Pentagon will save on packing and crating personal furniture when family men are transferred.

► Despite a mortgage which could come to 100% of replacement cost, mortgaging out should be tough. Capehart housing profits are subject to renegotiation.

► Because the military undertakes to pay off the mortgages, the Pentagon has asked FHA to cut its ¾% insurance premium. FHA has agreed to consider doing so within three years.

... FHA cuts back regular programs in some areas earmarked for new military housing

Texas Assn. of Home Builders sent a telegram to all Texas congressmen protesting plans to "flood local communities in Texas with government-owned housing."

Executive Secretary John Terrell told *HOUSE & HOME*: "The trouble is that they get them out on the base and they've got a captured group—with shopping centers, schools, everything else. That's bad for the whole community. We don't want to discourage the Army coming in here, but we think it's bad for military and civilians to be separated from each other." He added: "It [the new housing] is just government housing no matter how you figure it. It's just socialism."

But in Abilene—first Capehart Act project to reach bid-taking stage—builders and realtors were taking the news of 944 military units (sketch, p. 83) calmly. Said Builder J. B. Fooshee: "It's going to upset rental property more than sales—of course this is all theory—because the Air Force is going to demand that those houses be occupied. But rental housing won't be hurt if no more than this 944 are built." Commented A. M. Hinds of Bransford-Hinds Realty: "We're not really shaken by it, since we've got to have base housing of some kind. And many men will prefer to live off base." In other areas:

► Homestead Air Force Base, 25 mi. southwest of Miami, might need 1,700 off-base units, too, when fully complemented. Meantime, some builders thought the proposed 1,570 on-base units (sketches, p. 83) were too many. "It is obvious to me that this entire program should have been screened more carefully," said Builder James M. Albert. "I

believe it will have serious effects for both local builders and realtors." Others were less opposed. "We feel we can provide housing for a lot of the men who want to buy homes," said David Blumberg, who is building 7 mi. from the base. "We've already sold homes to 125 Air Force and civilian personnel who will be stationed at the base." Commented Sylvan Maxwell, president of the Miami board of realtors: "That area is expanding so rapidly that if it were overbuilt a little now it would quickly be absorbed." Charles B. Spofford Jr., local FHA director, said he certified the 1,570 units "with no hesitancy at all." He added, however, that he would not now approve commitments for ordinary FHA homes near the Homestead base.

► Speculative private housing near the Little Rock Air Force Base was also being discouraged by FHA to prevent "ghost housing" when 1,535 military units are built. Elbert L. Fausett, biggest builder in the area, figured the on-base housing would hurt local homebuilding if it were not for the fact that the estimated \$20 million military contract has been broken into five parts—making them small enough so local builders would have enough financial resources to bid on them. Fausett added it would be a "serious mistake" for a builder to put up 1,000 houses in the face of the on-base housing. Stronger objection was voiced by Raymond E. Block of Block Realty Co., who said a 95% drop in demand for homes in the Jacksonville area adjacent to the base could be blamed in part on the announcement of the military housing.

The House housing subcommittee headed

by Rep. Albert Rains (D, Ala.) takes a dim view of such complaints, however. Its view: military housing is a "critical" need for defense and its effect on other FHA programs should be ignored by the planners.

Here's where the first 37,000 military housing units under the Capehart Act will go:

Location	Units	Location	Units
AIR FORCE			
Little Rock, Ark. ...	1,535	Forbes AFB, Kan. ...	640
Dow, Me.	685	Luke AFB, Ariz. ...	795
Portsmouth, N.H. ...	1,700	Altus AFB, Okla. ...	700
Homestead, Fla.	1,570	Yuma Co. MAP, Ariz.	320
Ardmore, Okla.	750	Duluth MAP, Minn. ...	240
Fairchild, Wash. ...	250	Sawyer AFB, Mich. ...	340
Columbus, Miss.	480	TOTAL	23,987
Seymour-Johnson, N.C.	1,500	ARMY	
Blytheville, Ark. ...	860	Ft. Carson, Colo. ...	211
Abilene, Tex.	944	Ft. Leavenworth, Kan.	100
Plattsburg, N.Y. ...	1,685	Ft. Polk, La.	2,000
Eglin-Hurlburt, Fla. ...	500	Redstone Arsenal, Ala.	120
Webb, Tex.	460	Ft. Carson, Colo. ...	289
Bunker Hill, Ind. ...	680	Ft. Eustis, Va.	600
Griffiss, N.Y.	460	Ft. Lee, Va.	500
England, La.	300	Ft. Huachuca, Ariz. ...	575
Sewart, Tenn.	87	Schofield Barracks, T.H.	1,326
Myrtle Beach, S.C. ...	800	Ft. Rucker, Ala. ...	120
Oxnard, Calif.	200	Meade Gen. Depot, N. J.	18
Pope, N.C.	560	Ft. Knox, Ky.	2,042
Stead, Nev.	500	Ft. Bragg, N.C. ...	2,000
Buckingham, Fla. ...	470	TOTAL	9,901
Pittsburgh Apt., Pa. ...	280	NAVY	
Minot AFB, N.D. ...	450	Albany, MCSD, Ga. ...	160
Nellis AFB, Nev. ...	395	New River MCAF, N.C.	400
Grand Forks, N.D. ...	240	Beaufort MCAS, S.C.	2,565
Edward Gary, Tex. ...	215	Great Lakes NTC, Ill.	590
Westover, Mass. ...	200	TOTAL	3,715
Bong, Wisc.	350	NEWS continued on p. 96	
Laredo, Tex.	345		
Andrews AFB, Md. ...	280		
Klamath Falls, Ore. ...	220		
Tyndall, Fla.	420		
Olmstead, Pa.	140		
Suffolk Co. AFB, N.Y.	350		
Smoky Hill AFB, Kan.	535		

Announcing:

A major new competition for 'homes for better living'

A major new competition to recognize good design and quality construction in both builder and architect-client homes is being announced this month.

The "Homes for Better Living" awards are sponsored by the American Institute of Architects. Collaborators: *HOUSE & HOME* and *Sunset* magazine, leading West Coast monthly. Thirteen national trade groups are co-operating in the event. This year's contest (the event is planned as an annual affair) is limited to homes built in California, Oregon, Washington, Arizona, Utah, Nevada, New Mexico, Montana, Idaho and Hawaii. They must be designed by a registered architect and completed since January 1953.

National recognition

Winners, to be announced at the AIA convention May 15-18 in Los Angeles, will be accorded significant national recognition. The winning homes will be televised and incorporated into a film strip. They will also be exhibited at NAHB's National Housing Center, published in *HOUSE & HOME* and

considered as entries in the magazine's annual fall feature on "57 Homes for '57."

Two groups of awards

Awards will be in two broad groups:

1. Homes designed for an individual owner, divided into three classes: under 1,600 sq. ft., between 1,600 and 2,800 sq. ft. and over 2,800 sq. ft. of living space.
2. Houses designed by a registered architect for sale by a merchant builder and sold speculatively, in three classes by sales price: under \$15,000, between \$15,000 and \$20,000 and over \$20,000.

Entries may be made by the owner, builder or architect with consent of the other two parties and assurance that there are no copyrights restricting publication of the house if it is judged a winner.

How to enter

First step is to submit an entry application—with a check for \$10 per house—to "Homes for Better Living Awards," AIA, 1735 New York Ave., Washington 6, D.C. Applications must reach AIA by March 20.

AIA will mail back an entry binder and detailed instructions. Final entries must be in the judges' hands by April 20. These go to "Homes for Better Living Awards," *Sunset* Magazine, Menlo Park, Calif. where the jurors will meet with *HOUSE & HOME* and *Sunset* editors as they pick the winners.

The jury—to be announced this month—is being chosen from nationally known experts in architecture, building, mortgage finance and publishing.

Certificates of first awards and awards of merit will go to the owner, architect and builder of each winning house.

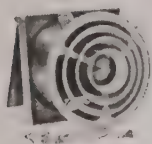
The 13 national trade organizations cooperating in the competition: American Bankers Assn., American Society of Landscape Architects, Institute of Life Insurance, Mortgage Bankers Assn., Natl. Assn. of Home Builders, Natl. Assn. of Mutual Savings Banks, Natl. Assn. of Real Estate Boards, Natl. Retail Lumber Dealers Assn., Natl. S&L League, Prefabricated Home Mfrs. Institute, Producers' Council, US S&L League, US Chamber of Commerce.

FRESH APPROACHES TO FASTER SALES!

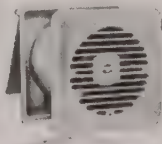


Westinghouse Ventilators

...with the name that means "best" to more home buyers.
Like all Westinghouse fans, they're guaranteed for 5 years!



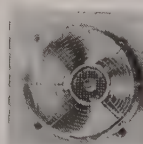
Wall Ventilator WV-410
10" blades ... 420 C.F.M.



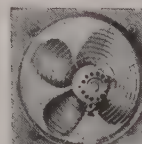
Wall Ventilator WV-311
8" blades ... 300 C.F.M.



Ceiling Ventilator CV-311
8" blades ... 300 C.F.M.



Attic Exhaust Fan EF-2510
20" blades ... 2500 C.F.M.

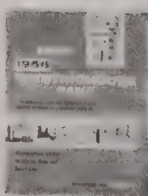


Attic Exhaust Fan EF-1310
16" blades ... 1300 C.F.M.

FREE —Get this new Westinghouse Fan and Ventilator Catalog. Photos, features, specifications, dimensions on the entire line of 1956 Westinghouse fans.

YOU CAN BE SURE...IF IT'S

Westinghouse



MAIL COUPON TODAY

Westinghouse Electric Corporation
Electric Appliance Div., HH-356
Mansfield, Ohio

Gentlemen: Please rush my free copy of the new 1956 Westinghouse Fan and Ventilator Catalog.

Name

Company

Address

City Zone State

Place Homes

**cured my headaches...put me
out in front of competition with...**



- bigger profits!
- better quality!
- prize-winning plans!
- full-weight construction!
- a complete range of 15 plans and 45 elevations!

Free yourself of time consuming, nerve-racking, purchasing, inventory and financing problems. Assure your operation of a good profit... top quality materials... consistent prize-winning homes plus top-flight assistance in land acquisition, planning and development.

Start building more homes with your present crew! Hitch your wagon to Place Homes—the fastest growing, conventionally-built packaged home manufacturer in the industry. You'll be time and money ahead if you do!



Complete package, construction and mortgage money available through Crown Mortgage, Inc., a subsidiary of Place Homes, Inc.

Place Homes, Inc.
1213 S. Walnut Street, South Bend, Indiana
Rush all data and specifications on nationally famous Place Homes.

Name

Address



Just a squeeze sets the fastening stud in steel or concrete!

THAT'S HOW SIMPLE IT IS—a flex of the finger—to anchor fixtures securely with the Remington Stud Driver. Off goes the power load, the stud is anchored into steel or concrete—straight as an arrow. No predrilling or outside power source required!

You can set both $\frac{1}{4}$ " and $\frac{3}{8}$ " diameter studs with the Remington Stud Driver—up to 6 studs per minute either size. There are 40 different styles and lengths of Remington Studs to choose from. With this *one* tool, you can take on *every* stud-fastening job—light, medium and heavy-duty—and save time and money on every one of them! Get full details by mailing coupon below.

Remington

DU PONT

**STUD
DRIVER**

Industrial Sales Division HH-3
Remington Arms Company, Inc.
Bridgeport 2, Conn.

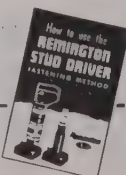
Please send me your free booklet which shows how I can speed my job and save with the Remington Stud Driver.

Name _____ Position _____

Firm _____

Address _____

City _____ State _____



Jet silencer touted as airport noise-killer

Jet airplanes may not throw homebuilders and appraisers into a tailspin after all.

Boeing Airplane Co.'s announcement of a jet engine silencer should go a long way toward quieting fears of builders that super-noisy jet airliners will keep them from using thousands of acres of good development property around airports.

Boeing's silencer muffles the jet screech by converting it into sound with frequencies too high for the human ear to hear. Lockheed is also working on a jet noise muffler.

FHA and VA have been working on a new set of rules governing appraisals on homes near airports. Last month, FHA called a meeting of some of the best minds in the industry to see what can be done about the increase in "off-limit land" for builders (Jan., News).

There was one bit of evidence that the whistling jets were not as bad as they first sounded. Col. James Twitty, commander of Homestead Air Force Base in Florida, surprised a local citizens group by telling them jets had been flying around for two days. Nobody had noticed. Two possible reasons: the main runway has been reoriented and a new traffic pattern set up to keep the planes away from developed areas.

Urban renewal described as 'hopelessly bogged'

HHFA's urban renewal program was on the receiving end of more brickbats as the black sheep of housing.

A House subcommittee headed by Rep. Albert Rains (D, Ala.) called its effort to produce new rental housing "hopelessly bogged in administrative bungling."

Said an HHFA aide in a moment of frankness: "One day these guys [the housing agencies' top brass] are going to get seriously enough concerned to do something about it. I think we've got the pattern set up where we can move pretty fast. But we've got to stop bickering inside the agency about who is going to do what. We've got to break the log jam."

The Rains committee decried an "almost total lack of activity under the new FHA urban renewal housing programs," called Sec. 221 "a complete disappointment." Sec. 220 has moved with "exasperating slowness," and the one commitment issued to date (in New York) probably would not have been issued yet, said the committee, "had not the government agencies been confronted with the threat of a Congressional investigation. . . ."

FHA probe blamed

As others have done, the subcommittee blamed much of FHA's trouble with urban renewal on "windfall" investigations of 1954, which "until very recently left FHA in . . . a state of shock." Other developments:

▶ "The federal government indulges in delays which are getting shocking to me," said H. Harold Leavey, a member of the Sacramento Redevelopment Agency. "Our project has been hanging fire for five years and while some of the delay . . . can be attributed to the city council, this recent delay is little short of scandalous."

▶ Mayor Richard C. Lee of New Haven, Conn. told the American Municipal Assn.:

"I believe there should be a drastic overhaul of the administrative regulations which govern the renewal program. . . . More flexibility must be given to the municipalities."

► Witnesses at another Rains committee hearing in Cleveland last month criticized FHA ("Under FHA auspices, low-cost housing cannot and will not be built," said Oscar Steiner, president of Community Development, Inc.) and recommended special federal aid for cities like Cleveland, where the housing problem is complicated by an influx of persons from depressed areas. Upshur Evans, president of the non-profit Cleveland Development Foundation, recommended that land for urban renewal be furnished builders without cost, at government expense. Evans said he was disappointed in the 1,200-unit Garden Valley urban renewal area—sponsored by the foundation—because rents were going to be so high. Construction costs and profits have been cut to the bone. The government pays two-thirds of the land acquisition and improvement cost. "Yet with all this," said Evans, "our most optimistic estimate is that rents will range from \$79 for two-bedroom units to \$95 for three bedrooms."

Senate group hints charges of padded closing costs

Did VA and FHA home buyers pay out some \$196 million last year for closing costs? If so, was that too much?

The Senate housing subcommittee wonders—and with reason, judging from new figures on closing costs just revealed in the subcommittee's annual report for 1955.

Subcommittee staffers ferreted out some startling figures on FHA and VA settlement costs in Philadelphia and New York. In Philadelphia, closing costs averaged \$256.10 on FHA-processed loans (2.72% of 152 loans averaging \$9,415). In New York, closing costs averaged only \$196.59 on FHA loans (1.63% of 178 loans averaging \$12,021). In both cities, closing costs for 1,200 VA and FHA loans studied averaged 1.95% of loans. If the national average worked out the same way the staff says, buyers last year would have paid \$196 million this way.

FHA is collecting closing costs broken down into 23 ingredients and according to price classes of homes from all its offices. If the preliminary report is any guide, the mortgage banking world may be in for some shocks after Congress goes over the results.

The study hints that a few mortgage companies may be padding their settlement charges. In New York, it said: "Mortgagees whose settlement costs were consistently high at FHA followed the same trend at VA. Mortgagees who consistently charge higher fees usually include the following items on the settlement sheets: 1) survey fees, 2) attorney fees, 3) service charge, 4) recording fees. While these times do appear on the settlement sheets of low-cost mortgagees, they do not appear with the same frequency." In Philadelphia, high-cost mortgagees most often charged for appraisal fees, survey charges, service charges and charges for conveyancing.

NEWS continued on p. 100

LAMINATED BEAMS

maintain original beauty



Westwood Estates, Strongsville, Ohio, architects Hart & Weiss. The natural warmth and beauty of the 2½" x 13" exposed Rilco beams add dramatic interest and distinctive appearance.

• • • • • No splitting,
warping
or twisting

"Exposed beam homes sold 6 times first day," report Hart & Weiss, architects on the Rilco Laminated Beam homes built for Westwood Estates in Strongsville, Ohio. These homes sell because their beauty is permanent. Rilco beams offer a fine machine finish and unlike solid timber, they will not split, twist or warp.

Individual plies of West Coast Douglas Fir are kiln dried to approximately 12 per cent moisture content before being glued into finished Rilco members—thus dimensional

stability and permanent beauty are assured—an important factor in selling any home.

Available in sizes difficult or impossible to obtain in solid timber, Rilco Beams can be flat, pitched or tapered for overhang. Erection is remarkably easy. Westwood Estates contractors, R. A. Koplow and I. W. Konigsberg found Rilco "plank and beam construction saved valuable time and money—it took only one hour to tilt up the post and beam frame."

Rilco laminated beams, arches are offering architects new latitudes in designing homes, churches, schools, commercial and industrial buildings. Built to precise specifications, they come on the job securely wrapped, ready for any wood finish. Rilco service engineers will gladly consult with you.

Write for information.



Contractors R. A. Koplow and I. W. Konigsberg erected these twelve Rilco post and beam frames in one hour. Pitched beams spaced 6' o.c. have a clear span of 21' 6" with a 3' 6" overhang.

RILCO
works wonders with wood

RILCO LAMINATED PRODUCTS, INC.
2543 FIRST NATIONAL BANK BLDG. • ST. PAUL 1, MINN.
District Offices: Wilkes-Barre, Pa.; Fort Wayne, Ind.; Tacoma, Wash.



Roof deck also serves as finished ceiling eliminating purlins, joists, bridging, sheathing, lath and plaster.

**no other
home
equipment**

**is used
so
much!**



be sure
your homes use
the glass-lined water heater
that has 17 years of
proof behind it

Permaglas[®]

- The ONLY water heater you don't need to hide in a closet.
- The ONLY stylized water heater—and the ONLY one in aqua-and-copper.
- The ONLY water heater with EYE-HI temperature control. No more stooping! No more squinting!
- The ONLY water heater with patented HEETWALL. More efficient—no bursts of scalding hot water.
- The ONLY glass-lined water heater with 17 years of success behind it. There's only one Permaglas, and it's made by A. O. Smith.



Through research  ... a better way

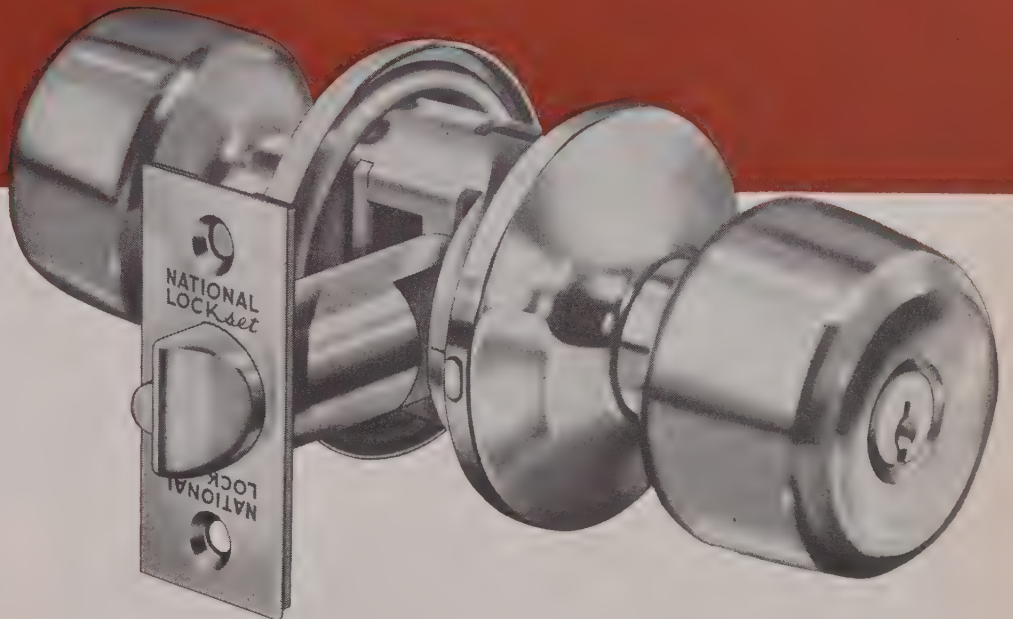
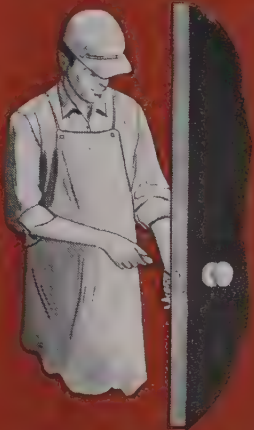
A.O. Smith
CORPORATION

Permaglas Division, Kankakee, Illinois
International Division, Milwaukee 1, Wisconsin

NATIONAL LOCK *set*

Patent Applied For

...quickly installed



**Another
Important
Reason Why
It's...**

AMERICA'S OUTSTANDING LOCKSET VALUE

Only 7 simple steps are required to install NATIONAL LOCKset. Such special features as easy slot-engagement of lock and latch . . . clamp plate assembly with key-slot design . . . snap-on rose . . . positive spring-retaining pin to hold knob . . . save installation time at every step. And, too, National Lock's complete line of installation aids, including special boring jig, bit and mortise marker, cut on-the-job overhead that every builder appreciates. • Remember, NATIONAL LOCKset's *distinctive styling, precision engineering, troublefree performance* and *fast, easy installation* are vital sales points that are striking home with builders, architects and owners from coast to coast.

**Order It With
Confidence**

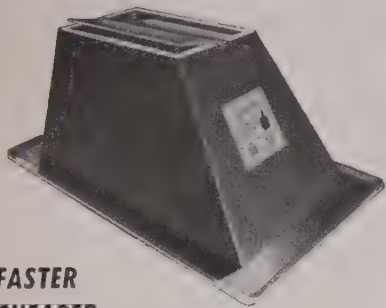
**Specify It
With Pride**



NATIONAL LOCK COMPANY

Rockford, Illinois • Merchant Sales Division

NOW...you can build that **unusual** fireplace



**FASTER
CHEAPER
BETTER...with the new**



Here's the *easy* answer to the popular trend toward *unusual* fireplace openings. In fact, the Beneform Universal Damper is the *only* answer that assures *lower* construction costs as well as the strong smoke-free draft so vital in unconventional fireplace design.

Builds ALL 6 Basic Opening Types

No matter which fireplace type you are building... projecting corner, 2 sided or 3 sided openings, openings in 2 rooms, open all around, etc.—Beneform will build it *better*—and at *lower* cost. Thousands of successful installations and our years of fireplace specialization are your assurance of complete satisfaction...

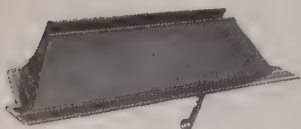
Six Stock Sizes Available...

—ranging from 26" x 26" up to 50" x 24". Complete specifications, prices and recommended construction details for all types of fireplaces furnished upon request.



**EXPANSIP
STEEL
DAMPERS**

The famous boiler plate steel damper with the exclusive slip-joint feature, which takes up expansion that occurs when damper gets hot. 60° front slope gives sure draft. 8 sizes — up to 72" wide, designed for easy lay-up of brickwork.



**CAST
IRON
DAMPERS**

Improved, higher front design assures better draft, better smoke passage. Sturdy cast iron construction, with either cast iron or steel valve. Precision-cast in our modern foundry, Bennett cast iron dampers have no thin spots or weak sections to give trouble. Wide range of sizes.

See your Bennett Supplier for the complete Bennett line including Benefire Fireplace Forms, Ash Dumps, Cleanout Doors and the TRUE Flexscreen.

Write 356 Call Street, for free catalog



PEOPLE: Robert B. Wolf, lawyer who backs public housing, named FHA counsel; James Lash to head ACTION

FHA hired a full-fledged housing expert as general counsel: Philadelphia Lawyer **Robert B. Wolf**. At 41, Wolf has already run up a deal of experience in urban housing and public life. He bucked city hall for slum



Wolf

clearance in 1950, midwifed a new housing code a year ago, in between times ran for the city council (unsuccessfully) and managed successfully the citizens-for-Eisenhower effort in southeastern Pennsylvania. Last month, he was in Germany for the Benjamin Franklin Foundation, helping set up a permanent conference hall in West Berlin which will house the US contribution to the International Building Exhibition in 1957.

Wolf fills the \$13,975 FHA job vacated by New York Lawyer **Frank J. Meistrell** when he was made deputy administrator of HHFA last September.

Wolf is a relaxed and urbane gentleman. But he has voiced some strong opinions about the agency he is joining. Last October he told the Rains committee that "there hasn't been what we away from Washington would consider real executive management of the organization in the last several years. . . . We feel that there is nobody who is willing to step in and take authority and really set up a program without worrying about what is going to happen to him personally."

He also espoused bigger public housing programs. "There is no question we need public housing," he told the committee. "That issue is long since dead. The die-hards in the forties have disappeared, I think, and 45,000 units of public housing is ridiculously low. . . . I don't think it matters what my political persuasion is. I happen to be a rather conservative Republican, but I am perfectly frank to admit that the day of fighting public housing is gone."

Wolf was Phi Beta Kappa at Haverford College, later attended Harvard Law School. Until he resigned to take his new job, he was a partner in the topnotch Philadelphia law firm of Wolf, Block, Schorr & Solis-Cohen. His legal career has been somewhat overshadowed by that of his highly respected father, **Morris Wolf**, who was **Harold Stassen's** general counsel for the Foreign Operations Administration in 1954. The younger Wolf branched out in other fields. He did not do as much as he wanted when he was chairman of Philadelphia's Coordinated Housing Improvement Program (CHIP) in 1950—the old city hall gang would not come through with the kind of cooperation needed to enforce the outmoded housing code—but he did learn about housing problems. At one point he charged that thousands of tenement dwellers were being terrorized and intimidated by about 30 large-scale property owners. When he ran for the city council the same year he accused both Democrats and Republicans of using housing as a political football.

Wolf did not help on the city's new housing code (Feb., News) until the document had been through some stormy public hearings. Then, as a key member of the Greater Philadelphia Movement's housing committee, he brought the opposing sides together and worked out compromises so that when the code was finally adopted nearly everybody seemed happy about it.

Wolf also finds time to serve as a director of Botany Mills, Inc., Sun-Ray Drug Co. and Hercules Cement Co.

James E. Lash, former redevelopment director of San Francisco, was appointed executive director of ACTION, the American Council to Improve Our Neighborhoods. He will succeed **Martin Meyerson**, who is return-

S. F. Chronicle



Lash

ing to the University of Pennsylvania at the end of a year's leave but who will remain as ACTION research chief and head up ACTION's \$250,000 study financed by the Ford Foundation on what roadblocks are hindering adequate housing for everybody. For this, ACTION is opening a Philadelphia office.

Lash, 41, lost his redevelopment job in 1954 in a local political purge despite protests from most of the newspapers, the real estate board, chamber of commerce, AIA, Planning and Housing Assn., board of supervisors (San Francisco's governing body) and the League of Women Voters. One official predicted his ouster would "set the city's redevelopment back five years." Lash has since been West Coast chief for Harland Bartholomew, the St. Louis planner.

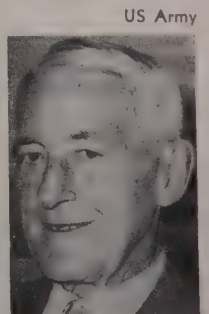
Another ACTION change: Maj. Gen. **Fredrick A. Irving** (ret.) has resigned as president, after steering the organization through its first crucial year, to join his family in the South.

Frank Floete, ass't defense secretary for building, named head of GSA

Franklin G. Floete, retired small city banker, construction man, lumber and auto dealer who has presided over military construction since July 1953 as an assistant defense secretary, was named acting administrator of the General Services Administration. He succeeded **Edmund F. Mansure**, who resigned because of "personal obligations" amid a Congressional inquiry into GSA's huge nickel plant construction contract in Cuba.

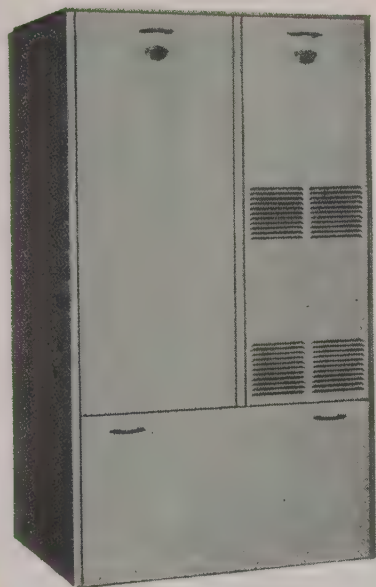
Floete (pronounced Float-ee), now 66, has spent much time and energy on military

continued on p. 104



Floete

SHARP POINT! WEATHERAMIC SALES APPEAL



HEATING-COOLING COMBINATION

To make a penetrating selling point long before you get to the feature story, show Utility's Weatheramic® Air Conditioner. At first sight, this year 'round combination heating-cooling unit puts up a winning selling "front" in an eye-pleasing new color—Bank Note Green. With Bonderized undercoat and durable baked enamel exterior, new Bank Note Green is truly a lifetime finish. Under its dashing appearance beats a sturdy heart by Utility, with all the years-ahead refinements you've come to expect: "Floating Chassis" eliminates cabinet vibration—permits installation of furnace cabinet now, hermetically sealed refrigeration unit later; large 12" double width blower resiliently mounted to shush fan noises to a bare murmur; fully automatic controls for split-second switch from summer-to-winter, winter-to-summer operation; compact cabinet styling to save precious floor space. To build and maintain your already enviable reputation, next time be sure to specify the distinguished good looks, superior engineering, guaranteed dependability and common sense pricing of Utility Weatheramic® Heating-Cooling Combinations.

UTILITY APPLIANCE CORP.

Manufacturers of
Utility Furnaces,
Air Coolers,
Air Conditioners,
Water Heaters and
Gaffers & Sattler
and Occidental
Gas Ranges

Weatheramic

LINE



FORCED AIR FURNACES / AIR CONDITIONERS

UTILITY APPLIANCE CORP. 4851 south alameda street, los angeles 58, california

continued from p. 100

the hand that rocks the cradle... buys the home

It's the woman... who is conscious of dust
and drafts and floor-playing youngsters...
who is solidly sold on the extra slim-line beauty
and velvet smooth operation of Horizon
Sliding Glass Doors with their superb
all-weather sealing and reassuringly
secure tamper-proof locks!

For that extra touch that sells
the hand that buys the home, insist on
HORIZON—built by builders for builders,
with that all-important woman in mind!



by HORIZON

World's largest producer of sliding glass doors

MAIN PLANT: Glendale, Calif. BRANCH FACTORIES: San Francisco
Dallas • New York • Cleveland • Chicago
45 Distributors in Key Cities
Telephone Glendale, Calif. • CHapman 5-1286

HORIZON DOOR COMPANY, INC.
Flower & Paula Sts., Dept. HD3
Glendale 1, California

Send complete information. I am a:

builder ☐ architect ☐
dealer ☐ distributor ☐

Name _____

Address _____

City _____ State _____

Sky-View
SLIDING GLASS DOORS

Copyright 1956, Horizon Door Company, Inc.

family housing during his two-and-a-half years in the Pentagon. Capitol Hill observers credit him with making considerable headway toward persuading a reluctant Congress that the cheapest way to get such quarters built is with direct appropriations. He also speeded adoption of standard plans for repetitive facilities like barracks, bachelor officers quarters, warehouses and hospitals. As Floete moved to GSA, the government's general house-keeping agency, the outlook for family housing was brightening (see p. 83), although it will be built under a formula which Floete probably would not wholly approve: the revised FHA Title VIII, now known as the Capehart Act.

New York City hires another HHFA outcast: Frank S. Horne

New York City hired another displaced person from HHFA.

Dr. **Frank S. Horne**, ousted as HHFA's special assistant on racial relations last summer, was named executive director of New York's Commission on Intergroup Relations. (The first DP: **Berchmans T. Fitzpatrick**, who was pushed out of HHFA's general counsel post 14 months ago because the administration wanted a Republican in such a top policy position. He spent eight months on the Mayor's Committee for Better Housing, is now a lawyer in Washington.)

Horne was still fighting his dismissal before the Civil Service Commission. Last November, CSC's appeals examining office upheld his discharge. Now, Horne has taken his case to the commission's board of appeals and review. "The issue," he said, "is whether or not any agency may contravene legal rights of veteran career employees [Horne had been with HHFA for 19 years] for partisan political ends."

John Lloyd Wright wins appeal against architect license law

Conviction of **John Lloyd Wright** of Del Mar, Calif. on charges of practicing architecture without a license was overturned last month by a San Diego superior court.

Wright, the 62-year-old son of Architect **Frank Lloyd Wright**, was charged with four misdemeanor violations of the California business and professional code more than a year and a half ago (Aug. '54, *News et seq.*) The charge of unlicensed practice hinged chiefly on the contention that Wright wrongfully advertised himself as a member of AIA. (He is licensed in three other states, not in California.) Wright drew a 60-day suspended sentence last spring.

The three-judge higher court ruled unanimously that it was permissible for Wright to advertise the fact that he was a member of AIA. It mentioned the "conditional provision" in the state architects' act that allows designers to draw plans and specifications though not licensed by the state. The appeals court dodged ruling on Wright's contention that the law is unconstitutional, however. One member of the architectural examiners board indicated the board will appeal to the state supreme court.

Commented Ass't District Attorney **Arnold Steele**, who tried the case: "The statute is not a good one. It's difficult to enforce and

it's difficult to interpret. Two persons may reasonably arrive at opposite conclusions about what you can and cannot do."

Many a California architect seems to agree. But tightening the law is a sticky political problem in a state where there are some 2,500 architects against 70,000 builders and contractors who would just as soon be free to do their own designing.

Six architectural professors retiring, shifting colleges

Six major changes in the faculties of US architectural colleges are in the works.

Paul Schweikher, chairman of the department of architecture at Yale University since Feb. 1954, will leave to head Carnegie Tech's department at Pittsburgh July 1.

Eduardo Catalano is scheduled to quit as head of the department of architecture at the University of North Carolina's school of design. He is slated to succeed **Ralph Rapson** at Massachusetts Institute of Technology. Rapson left a year ago to become head of the architecture department at the University of Minnesota.

Harold Bush-Brown, 67, will retire at the end of the spring term as head of Georgia Tech's school of architecture. Probable successor: Prof. **Paul Heffernan**.

Charles Colbert, New Orleans architect, was about to be appointed to head the division of architecture at Texas A&M, succeeding **Ernest Langford**.

Louis I. Kahn, professor of architecture at the University of Pennsylvania, became Albert Farwell Bemis visiting professor of architecture at MIT for five months starting last month. **Edgar Kaufman Jr.**, former head of Good Design at Manhattan's Modern Museum, was named Bemis lecturer for the spring term.

The Home Builders Institute of Los Angeles became the first NAHB affiliate to set up a research department. It hired **Edward T. Scholtus**, a business administration graduate of Arkansas University in 1951 who had been doing research for Los Angeles' Security First Natl. Bank for the last three years. Scholtus plans—among other things—to compile home sales figures by area and price bracket, chart availability of land for future development, study population trends, incomes, building costs and volume.

Richard L. Nelson, executive vice president since 1948, became president of Real Estate Research Corp. in Chicago as founder and president **James C. Downs Jr.** moved up to chairman of the board. Downs is also the unsalaried housing and redevelopment coordinator for the City of Chicago.

NAMED: Paul N. Collin, president of Chicago's Allmetal Weatherstrip Co., as president of the Weatherstrip Research Institute, Riverside, Ill.; **Robert F. Faegre**, 39, as president and chief executive officer of Minnesota & Ontario Paper Co., makers of wall-board, acoustical and paper insulating materials, succeeding his father, **J. B. Faegre Sr.**, who became board chairman; **William H. McAuliffe**, **Harold J. Fasbender** and **Roy Brent**, as vice presidents of Harnischfeger Homes Inc., Port Washington, Wis. prefabricators.



**the hand that
buys the home.**

...prefers the

rolls sliding aluminum
window!

Women love Horizon views . . . the
easy-to-keep-clean finish that doesn't pit, discolor or stain . . .

the super-smooth "rolls-on-nylon" action and
newly designed PUSH-BUTTON locks!

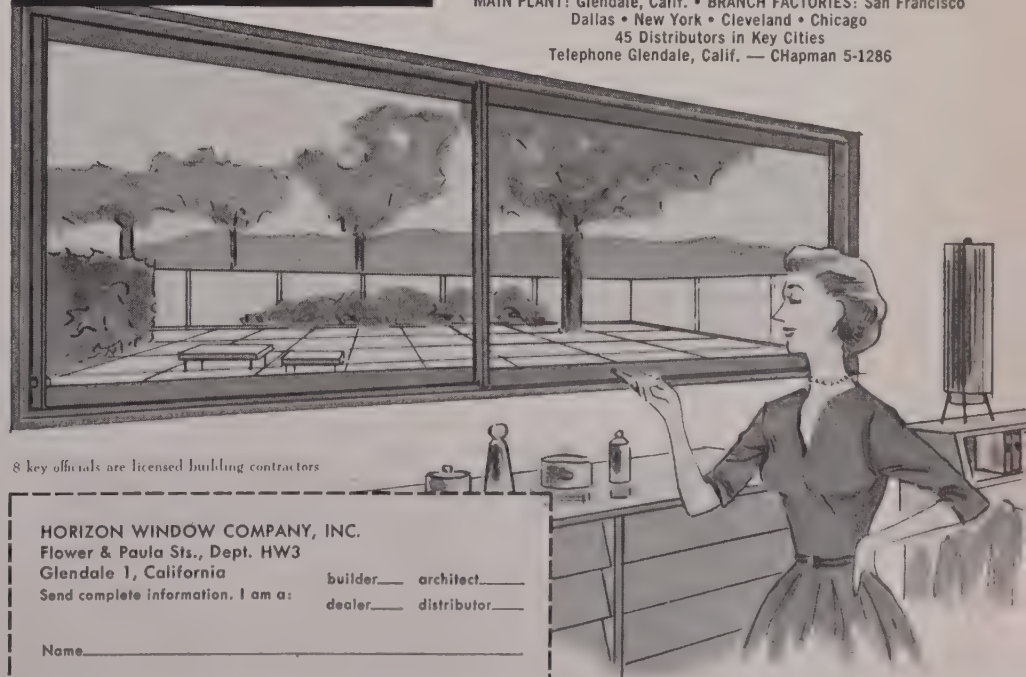
The ROLLS by Horizon is the favorite of builders, too,
for its sales winning beauty and time and money saving
installation features, including nail-on trim and built-in
grounds for plaster and stucco/siding!



by HORIZON

World's largest producer of sliding glass doors—

MAIN PLANT: Glendale, Calif. • BRANCH FACTORIES: San Francisco
Dallas • New York • Cleveland • Chicago
45 Distributors in Key Cities
Telephone Glendale, Calif. — CHapman 5-1286



8 key officials are licensed building contractors

HORIZON WINDOW COMPANY, INC.
Flower & Paula Sts., Dept. HW3
Glendale 1, California

Send complete information. I am a:

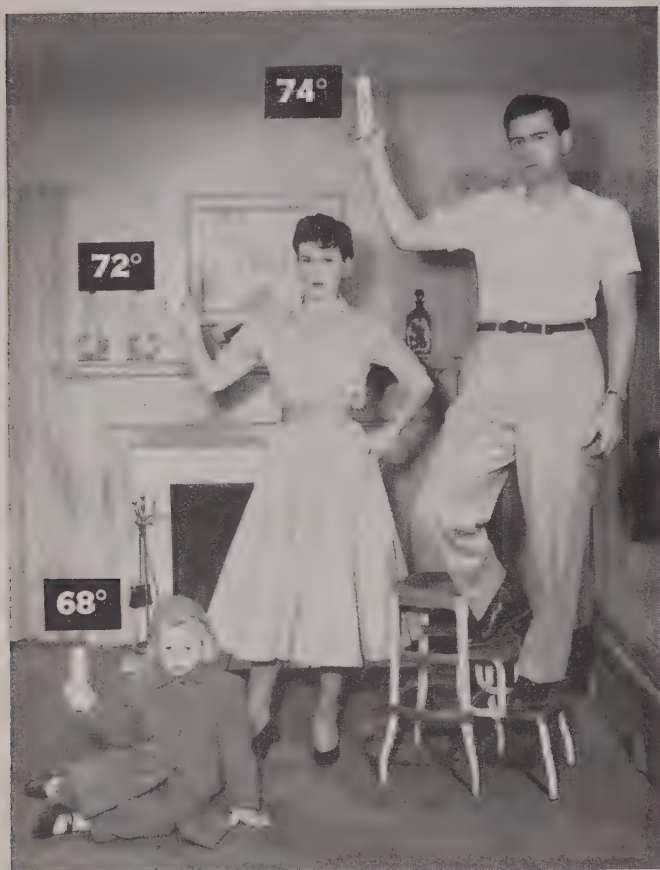
builder _____ architect _____
dealer _____ distributor _____

Name _____

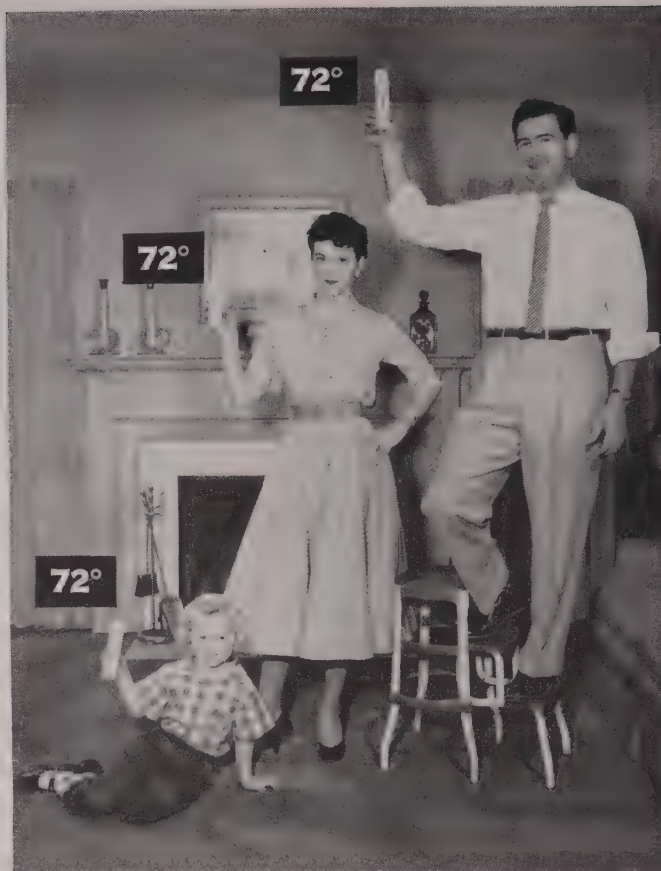
Address _____

City _____ State _____

Copyright 1956, Horizon Window Co., Inc.



NOT THIS! Many heating systems make you uncomfortable. It's too cold at the floor, just right in the middle of the room, too hot near the ceiling.



BUT THIS! Waterbury COMFORTROL By-Pass Heating gives CONSTANT comfort. Tests have shown less than one degree temperature variation from floor to ceiling.

New kind of heating gives home buyers the constant comfort they want

The family at left complains. The family at right recommends the builder of its home to friends. Reason? The family at right has the constant comfort every home buyer expects.

To help you deliver constant comfort, Waterbury has developed COMFORTROL By-Pass Heating.

COMFORTROL works on a very efficient principle. It *mixes* cool air with warm air in a ratio that provides the exact temperature called for by indoor-outdoor thermostats. It supplies this warmth

continuously at the same rate it escapes through walls and windows. Waterbury COMFORTROL By-Pass Heating takes maximum advantage of perimeter heat distribution and zone controls.

Your buyers get absolutely constant comfort in every room. They have a continuous supply of fresh, clean, humidified air. There are no hot and cold cycles or drafts. In tests, temperature has varied less than one degree between floor and ceiling.

If you've ever needed an extra

feature to close a sale, you'll appreciate the talking points alone of Waterbury COMFORTROL.

SEND FOR FREE 32-PAGE BOOKLET!

"It Takes More Than Heat To Be Comfortable". It's packed with interesting information that will help you sell more homes. Write . . . Waterman-Waterbury Co., 1150 N.E. Jackson St., Minneapolis 13, Minnesota.



Waterbury Comfortrol

BY PASS HEATING

By the makers of world-famous Waterbury furnaces and air conditioners

ANALYZE

Ingersoll
PLUMBING PRODUCTS

DESIGN

ADVANTAGES

● APPEARANCE

The coordinated design features of INGERSOLL fixtures give all your bathroom installations a modern, high quality appearance. INGERSOLL Plumbing Products have been designed specifically to blend with both modern and traditional decor. Beauty of appearance means faster sales, more satisfied customers. Available in a choice of five lovely colors.

● ECONOMY

Because INGERSOLL uses modern materials with modern, mass production methods of manufacture you get the most modern, most economical plumbing fixtures. Thus, INGERSOLL brings you fixtures designed of light weight porcelain-on-steel. This means lower manufacturing costs, lower shipping costs and lower installation costs.

● EASE OF INSTALLATION

Each INGERSOLL fixture has been designed specifically for extreme ease of installation. The Rio Grande bathtub, for instance, has an under-tub framework that allows the tub to rest on the floor without additional bracing or hanging. This excellence of structural design coupled with the light weight of all the bathtubs, kitchen sinks and steel lavatories mean simple, fast one-man installation.

Write for catalog on the modern, quality line.

ENGINEERING
B-W
PRODUCTION



INGERSOLL PRODUCTS DIVISION

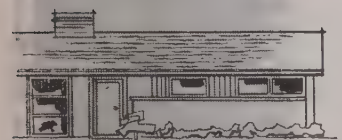
Borg-Warner Corporation

1000 WEST 120TH ST., CHICAGO 43

Top styling, 20% lower building cost . . .



two reasons for prefabrication boom!



Prefabricated home building increased well over 200% between 1948 and 1955. In the same period, total housing starts increased only 50%.

Why the faster rate? Prefabricated homes are designed by the nation's leading architects. Their superior styling gives them extra sales appeal. Also, they cost from 10% to 20% less to build. This combination of styling and price advantage really moves homes.

Prefabricated homes are eligible for FHA and VA financing. In all price ranges, they're the answer to greater profit. Write for a list of leading home prefabricators serving your area.



GROW WITH
PREFABRICATION

PREFABRICATED HOME MANUFACTURERS' INSTITUTE

933 20th Street N.W., Washington 6, D.C.

For sample copy of *H* the Magazine
of Prefabrication, send request on
your letterhead.



American Bankers Assn., annual savings and mortgage conference, **Mar. 5-7**, Statler Hotel, New York.

National Electrical Manufacturers Assn., mid-winter meeting, **Mar. 12-16**, Edgewater Beach Hotel, Chicago.

National Home Show, sponsored by the Toronto Metropolitan Home Builders Assn., **Mar. 30-Apr. 7**, Coliseum, Exhibition Park, Toronto, Canada.

Builders Assn. of Metropolitan Detroit, Builders Show, **Apr. 7-15**, Michigan State Fair Grounds.

National Housing Conference, annual meeting, **Apr. 11-13**, Statler Hotel, Washington.

Mortgage Bankers Assn., southern mortgage conference, **Apr. 9-10**, Dinkler-Plaza Hotel, Atlanta.

American Institute of Architects, regional conferences: South Atlantic District, **Apr. 12-14**, Durham, N. C.; Middle Atlantic District, **Apr. 26-28**, Wilmington, Del.

Gas Appliance Manufacturers Assn., annual meeting, **Apr. 19-21**, The Greenbrier, White Sulphur Springs, W. Va.

Associated Home Builders of the Greater Eastbay, California International Home Show, **Apr. 21-29**, Oakland Exposition Bldg.

Mortgage Bankers Assn., eastern mortgage conference, **Apr. 30-May 1**, Commodore Hotel, New York.

Architectural competition to "demonstrate original thinking on relation between interior and exterior of houses" sponsored by Morton Arboretum, Lisle, Ill. Entries close **May 7**. For information: write Howard T. Fisher, 322 W. Washington St., Chicago 6.

American Institute of Planners, annual meeting, **May 7-9**, Sheraton-Biltmore Hotel, Providence, R. I.

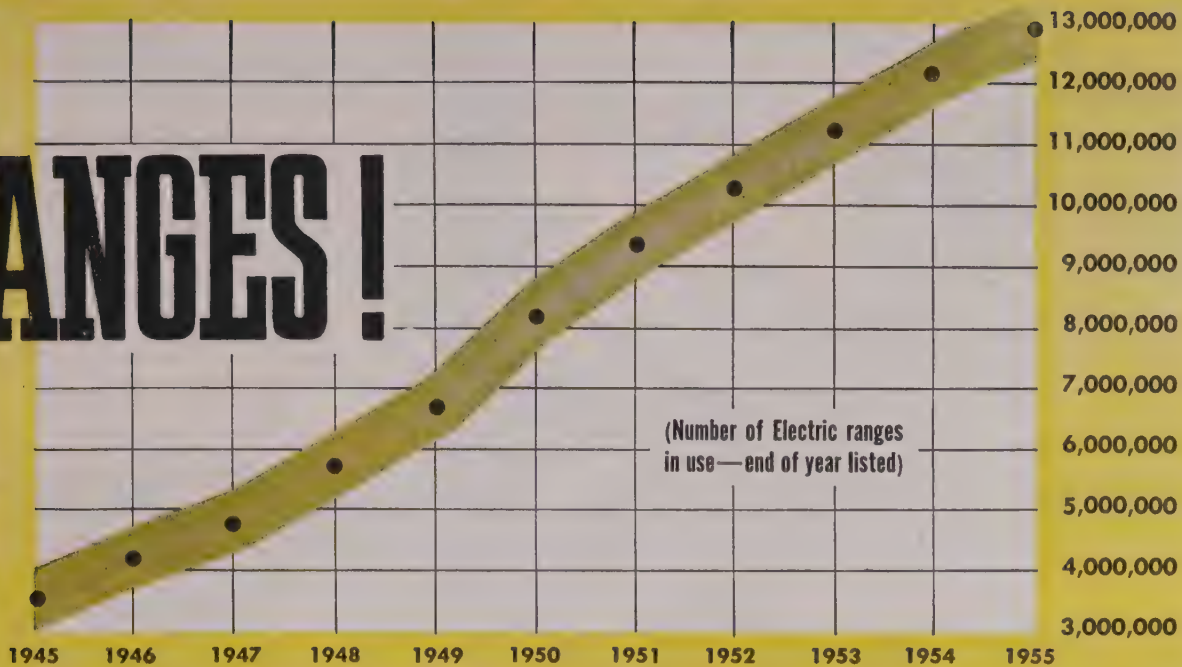
National Savings & Loan League, annual convention cruise from New York to Bermuda, **May 12-17**, S.S. Queen of Bermuda.

International Home Building Exposition, "Showcase for Better Living," **May 12-20**, New York Coliseum.

Mortgage Bankers Assn., western mortgage conference, **May 14-15**, Mark Hopkins Hotel, San Francisco.

American Institute of Architects, annual convention, **May 15-18**, Hotel Biltmore, Los Angeles.

RANGES!



Source: ELECTRICAL MERCHANDISING Annual Statistical and Marketing Issues

"Each of my houses has its own distinctive atmosphere, which is carried throughout," says Mr. Bloomberg. "This one is truly American in character—a modern 'rambler' plan. It includes living and dining rooms, two bedrooms, library, and 1½ baths. As in all my 'design for living' homes, the kitchen is the heart of the home. Here, authentic details of early years are complemented with an efficient, spotless and attractive *Electric Range* of today. Generous counter areas add desired convenience in the use of many work-saving electric appliances, making this kitchen free of the chores of early years."



ELECTRIC RANGE SECTION • National Electrical Manufacturers Association, 155 East 44th Street, New York 17, N. Y.
 ADMIRAL • AMERICAN KITCHENS • CROSLEY • FRIGIDAIRE • GENERAL ELECTRIC • GLOBE • HOTPOINT • KELVINATOR • MAGIC CHEF
 MONARCH • NORGE • PHILCO • RCA ESTATE • STIGLITZ INFRA-AIRE • TAPPAN • WESTINGHOUSE

Build Profitably for the Small Home Market

Designed by
DONALD H. HONN, A.I.A.

BOOST YOUR PROFIT ...with ALLEN HOMES!

Increased sales in a more competitive market? The answer comes through better designed homes, added features...at sensible prices! Allen Homes, designed by Donald H. Honn, American Institute of Architects, offer you a wide selection of attractive homes certain to give you a big competitive edge. Big home or small...you build the fastest selling home in your area when you build ALLEN HOMES...and at a comfortable increase in profits!

Get the facts! Let us show you the kind of results other builders are getting with the ALLEN HOMES package ...you should take advantage of the same opportunities!



DESIGN
AND
QUALITY

Selected for
the NAHB 1956
Housing
HALL OF FAME

Write, wire or phone TODAY!

ALLEN homes

* CUSTOM FLEXIBILITY * PRODUCTION LINE ECONOMY

Allen Industries, Inc. • Phone KENmore 4917
P. O. Box 2497, Station C, Fort Wayne, Indiana

LET'S OPEN OUR EYES! LET'S OPEN OUR MINDS!

Sirs:

You are doing a good job trying to bring some sense to the American people. I hope your editorial (H&H Jan. '56) will be read by everyone in this great housing industry.

Over the past few years we have furnished quantity when quantity was needed but there comes a time when quality should return.

We should get back to the private enterprise system as soon as possible and stop requesting Government subsidies and mortgages with repayment schedules insufficient to cover normal obsolescence and depreciation.

We must realize that not all people can afford a new home at the time they are raising a family, any more than all people can afford a new car whenever they wish.

RALPH R. CROSBY, *President*
Old Colony Co-Operative Bank,
Providence, R. I.

ILLUMINATION

Sirs:

... Illuminating and thought-provoking. The questions (Jan. editorial) you ask highlight the realtors' problems.

Some answers to your questions Nos. 4, 5, 6 and 7 lie in better organization of the real estate market and better understanding of the potentials of the business. We know some of the answers, but we haven't been able to make them widely effective.

EUGENE P. CONSER, *Executive vice president, Nat'l Assn. of Real Estate Boards*

MEATY QUESTIONS

Sirs:

There is a lot of meat in your questions (Jan. Editorial) and no one would disagree that all of them need a great deal of attention.

This market is changing fast and I am not sure the industry should be criticized severely for some of the housing it has built. True, it isn't too wonderful, but it served the purpose at the time it was erected.

I assume your main objective is to get the whole housing problem on a higher level.

H. R. NORTHUP, *Executive vice president, Nat'l Retail Lumber Dealers Assn., Washington, D. C.*

CONTINUOUS CAMPAIGN

Sirs:

... I was especially pleased with your emphasis (Jan. editorial) upon the necessity for a continuous campaign to improve the housing standards of our people. This has been much under-emphasized, in my judgment.

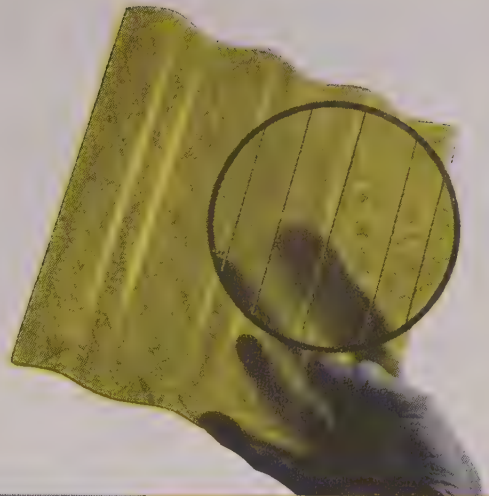
There are some other points in the editorial with respect to which my emphasis, at least, would be quite different—

continued on p. 116

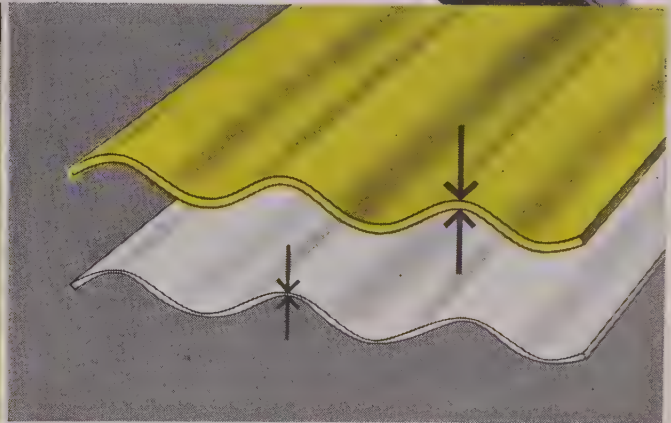
UNIFORMITY

makes a big difference in
Fiberglas-Plastic Panels

FILON PANELS ARE BY FAR THE MOST UNIFORM ... WITH GREATER STRENGTH AND DURABILITY. The parallel nylon strands (as shown in the magnified circle) are an exclusive FILON feature to control a uniform dispersion of Fiberglas and to add considerably to the strength and rigidity of FILON panels.



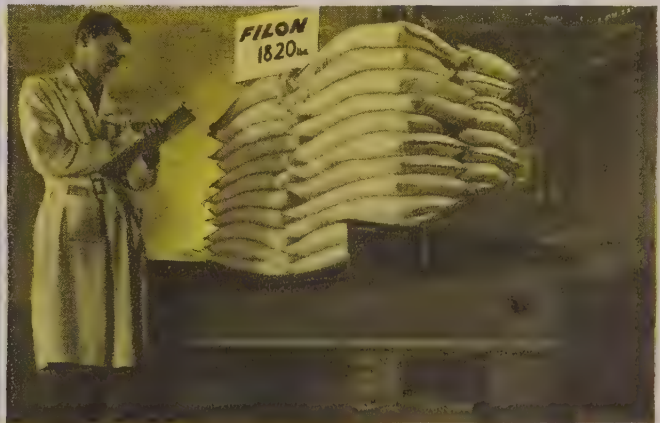
FILON'S UNIQUE MANUFACTURING PROCESS. High standards of quality are the result of extensive research for better raw materials and methods of production. FILON is produced in continuous lengths by a fully automatic electronically controlled system in the world's largest plant devoted exclusively to the manufacture of Fiberglas-Plastic panels.



UNIFORM THICKNESS FOR MAXIMUM DURABILITY. FILON'S uniform thickness prevents premature failures at fastening points. Moreover, the uniform density in color will create the most even lighting effects. FILON'S uniformity of thickness and color dispersion assures greater durability and better diffusion of light.



UNIFORM CORRUGATIONS FOR BETTER FIT. A good nesting overlap is obviously essential for a tight, waterproof fit. Rigid standards of corrugation tolerances for FILON panels give maximum assurance of satisfactory nesting and overlaps.



FILON HAS MUCH HIGHER LOAD CAPACITY THAN REQUIRED BY STANDARDS OF THE INDUSTRY. Shown above is a 26" wide FILON type 250 panel over a 4' span supporting a static load of 1820 lbs.—equivalent to 210 lbs. per sq. ft. Compare this with the 100 lbs. per sq. ft. required by industry standards.

FOR FREE ILLUSTRATED BROCHURES containing all technical data, ideas and detailed drawings, write to Architectural Dept. of our Regional Sales Offices or consult the "Yellow Pages" under the heading "Plastic Materials" for nearest Distributor.

FILON®
PLASTICS CORPORATION

2051 East Maple Ave., El Segundo, California
270 Park Avenue, New York 17, New York
228 North LaSalle Street, Chicago 1, Illinois
55 Marietta Street, N.W., Atlanta 3, Georgia

DISTRIBUTORS AND DEALERS WITH WAREHOUSE STOCKS COAST TO COAST, CANADA AND MANY OTHER FOREIGN COUNTRIES

continued from p. 114

if not my general point of view. But the editorial is a good one and I compliment you on it.

ERNEST M. FISHER, *Director, Institute for Urban Land Use and Housing Studies, Columbia University, New York City*

S&L CONVERSIONS

Sirs:

... Under the heading "Builders, Savings and Loan Men Move to Bury the Hatchet", you reported (Oct., News) recent moves in which I participated, taken to eliminate avoidable disagreement on matters of mutual interest. Your article refers to "... conversion of full-reserved federal savings and loans into state chartered stock associations, with big profits to the promoters" as a statement of fact. This is not so.

Some questions have been raised concerning recent conversions, but any that have been accomplished were done under a plan believed to be equitable to all parties concerned and approved by the Home Loan Bank Board, the Federal Savings and Loan Insurance Corporation, and the State Savings and Loan Commissioner concerned. Being one of those who converted, I see no inequity in the change over nor were there any "big profits to the promoters."

GUNTHER J. SHIRLEY, *President, Metropolitan Savings & Loan Assn., Los Angeles*

The question is controversial, and Subscriber Shirley has taken our words out of context. What we said was: "... some builder spokesmen were predicting Congressional investigation of savings and loan deals involving conversion of full-reserved federal savings and loans into state-chartered stock associations, with big profits to the promoters."

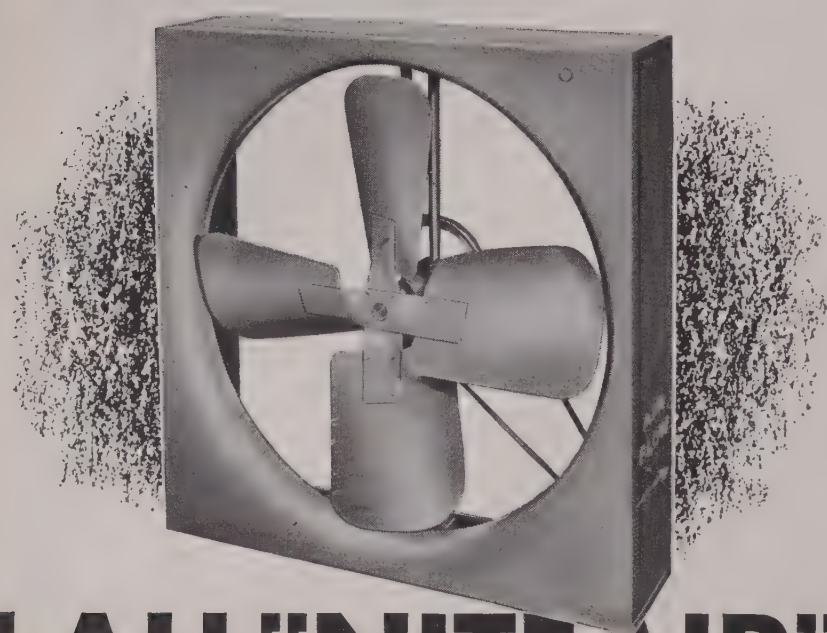
There have been 29 conversions so far, according to the Home Loan Bank Board. According to savings and loan leaders, most—if not all—of them create at least an opportunity for big capital gains to their promoters. Reason (in the words of HLBB Chairman Walter McAllister): "The statement is made that ... people who are on the 'in' buy the stock for \$100 or thereabout and it has a book value of \$200 to \$300 and up."

So far, it appears no melons have actually been cut, among other reasons because laws in many states prohibit such distribution of surplus-after conversion for 15 years. But the Home Loan Bank Board is enough concerned over conversion to have proposed two new rules which would, in effect, prohibit it (Feb., News). Meanwhile, the board has stretched its authority to suspend action for many months on at least one requested conversion.

The US Savings & Loan League, some of whose leaders fear that unchecked conversions might produce an investigation which could discredit the whole savings and loan industry, has named a committee of its top men to come up with a formula for demutualization terms which

continued on p. 120

Particular Builders Specify and Install



LAU "NITEAIR"® PANEL FANS

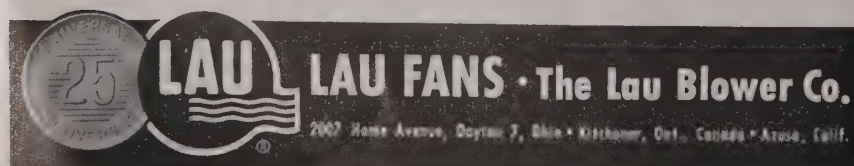


**Economically installed
at the building stage**

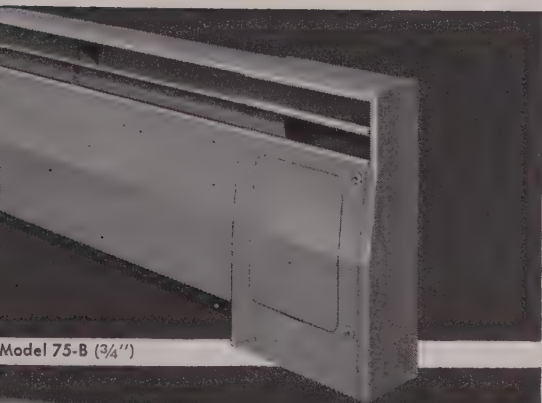
A LAU "Niteair" Fan adds selling appeal plus value ... and at low cost ... in every home you build. They are available in a wide size range, from 24" to 48" ... air deliveries from 4750 to 17,564 c.f.m. Built for long, quiet, trouble-free service ... statically balanced. Used in many homes with air-conditioning, to remove stagnant air from attics and relieve the cooling load. See your Lau fan representative for the facts.

STEVE ALLEN WILL SELL LAU FANS IN 1956
OVER THE NBC NETWORK, COAST-TO-COAST

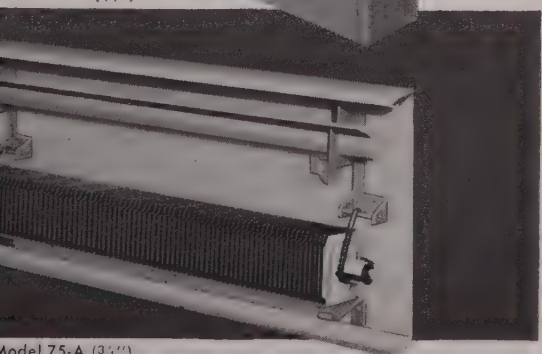
tonight



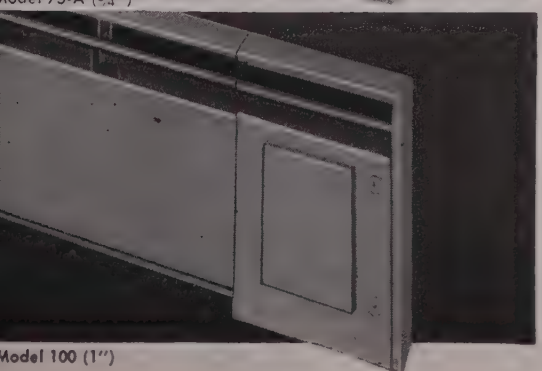
2002 Home Avenue, Dayton 7, Ohio • Kitchener, Ont., Canada • Azusa, Calif.



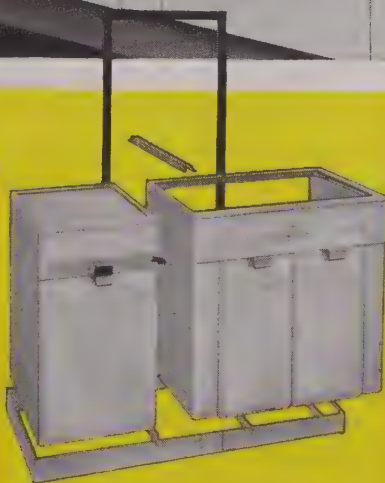
Model 75-B (3/4")



Model 75-A (3/4")



Model 100 (1")



**American-Standard helps you sell houses
on network television!**

YOU SAVE MONEY WHILE BUILDING SALES with beautiful, convertible American-Standard Kitchens. You can install an economical packaged kitchen, and the owner can customize it simply by adding accessories. For example, shelves and drawers of this convertible kitchen can be rearranged or added at any time, to meet the owner's need. And Snap-Lock assembly makes installation easier, quicker, cheaper. In this exclusive construction, a unique interlocking assembly channel aligns all the cabinets in a kitchen, clamps them together, fastens base cabinets securely to separate, easy-to-level sub-base. Complete assembly requires only a pair of pliers! *Made of steel for lasting appeal.*



AMERICAN-Standard

continued from p. 116

will be equitable to shareholders. So far, this has proved so hot a potato that no recommendation has been formulated.

Nobody has accused Mr. Shirley's Metropolitan S&L of any misdeeds.—Ed.

BETTER NOW

Sirs:

If you look at your original subscription list you will find our name.

Frankly HOUSE & HOME was a "turkey"—a disappointment. We did not renew our subscription, but your continued mailings got under our skin and we thought we would try you again.

Now you have found your place, your market . . . Now you are a service, a help. You are beginning to give us the feel of the times and the trends—which is the real *raison d'être* of magazines such as yours.

JAMES E. STEWART, President,
G. M. Stewart Lumber Co.,
Minneapolis

THE VIEW FROM FOX POINT

Sirs:

I take exception to the picture of a "Typical Fox Point Home," (Dec. News). It does not represent the fine array of homes in this wonderful suburb.

EUGENE P. PHILIPP
Milwaukee

ROUND MEMBERS?

Sirs:

In the article on standardization of bathrooms (Aug. issue), none of the members of the Round Table saw any advantage in a bathroom door larger than 24" wide.

I most definitely take exception to this opinion and I do so after having moved into an apartment in which the bathroom door is only 24" wide. Have any of the members of the Round Table, who may be somewhat overweight (and some are, judging from the picture on page 102) tried to carry a squirming two-year-old through such a door without banging the child's head on the door jamb?

I expect to pass through many bathroom doors in the future and here is my plea for a minimum 30" width. Houses are getting smaller and smaller. Don't make matters worse.

ALLEN R. FURBECK,
Wilmington, Del.

HOW TO BUILD BETTER . . . LONGER

Sirs:

The plaster ground idea (Ways to Build Better, Sept. issue) is not new to me. My father and I used the solid-ground method on small home construction in the North Bergen, N. J. area as early as 1937. We found it less expensive than to use 1 x 6 T&G roofers, ripped to desired width, in lieu of plywood. I can recall two occasions since then when I've seen the old style method of plaster lath grounds employed.

CWO HERBERT W. PENDER,
APO 500
San Francisco



adds little
to house cost
but a lot to
**House
Appeal**

One little touch of luxury with a practical appeal has sold many a house. And many a housewifely eye will light up at such luxury touches as this oversink treatment in Church Styrene Wall Tile, in any of Church's 32 beautiful colors.

Eminently practical, too, because it stays beautiful for years with just the swish of a damp cloth. Church Tile *anywhere* in the kitchen, bath or laundry adds a practical luxury your prospects will appreciate.

It costs surprisingly little — and its ease of application holds on-site labor to a minimum.

P.S. to prefabbers: Church Wall Tile's light weight makes it feasible to deliver completely tiled wall units ready for erection.

C. F. CHURCH MFG. COMPANY HOLYOKE, MASS.

Division of **AMERICAN - Standard**

Made by the makers of "THE BEST SEAT IN THE HOUSE"®

For full information use the coupon below.

C. F. CHURCH MFG. COMPANY
Dept. HH-3
Holyoke, Mass.

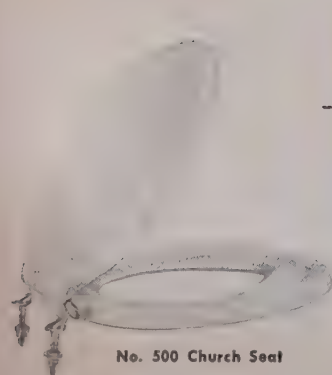
Please send me illustrated literature and full information on Church Tile () Church Seats ().

Name

Firm

Address

City State



No. 500 Church Seat

The name Church on any product stamps it beyond question as the best

House & Home

March 1956

Volume IX, No. 3

Published by TIME Incorporated

EDITOR-IN-CHIEF Henry R. Luce

PRESIDENT Roy E. Larsen

EDITOR & PUBLISHER
P. I. Prentice

MANAGING EDITOR
Robert W. Chastaney Jr.

EXECUTIVE EDITOR
Carl Norcross

ART DIRECTOR Adrian Taylor

ARCHITECTURAL EDITOR Peter Blake

NEWS EDITOR Gurney Breckenfeld

ASSOCIATES

James P. Gallagher, Barney Lefferts,
Mary McGee, Robert W. Murray Jr.,
Richard W. O'Neill, Richard Saunders
(Washington), Arthur Watkins,
Jan V. White

ASSISTANTS

Peggy Bushong, Natalie Forsberg,
Alice O'Connor, Kathryn Morgan-Ryan,
Olive F. Taylor, Mary Elizabeth Young

CONSULTANTS

Miles L. Colean, FAIA, Ruth Goodhue
James T. Lendrum, AIA, David C. Slipher

PRODUCTION MANAGER Lawrence W. Mester

CIRCULATION MANAGER William L. Taylor

BUSINESS MANAGER Archibald Peabody Jr.

MARKET RESEARCH DIRECTOR
Arthur S. Goldman

ADVERTISING DIRECTOR
Richard N. Jones

HOUSE & HOME is published monthly by TIME INC., Time & Life Building, 9 Rockefeller Plaza, New York 20, N. Y. Yearly subscription payable in advance. To individual or firms (and their employees) engaged in building—design, construction, finance, realty; material distribution, production or manufacture; government agencies and supervisory employees; teachers and students of architecture and trade associations connected with the building industry; advertisers and publishers: U.S.A., Possessions, Canada, \$6.00; elsewhere, \$9.50. Single copies, if available, \$1. All copies mailed flat. Please address all subscription correspondence to **HOUSE & HOME**, 9 Rockefeller Plaza, New York 20, N. Y. When ordering change of address, please name the magazine and furnish an address label from a recent wrapper, or state exactly how the magazine is addressed. Both the old and the new address are required. Allow four weeks for the change. © 1956 by TIME INC. All rights reserved under international and Pan American copyright conventions.

TIME INC. also publishes **TIME**, **LIFE**, **FORTUNE**, **SPORTS ILLUSTRATED** and **ARCHITECTURAL FORUM**. Chairman, Maurice T. Moore; President, Roy E. Larsen; Executive Vice President for Publishing, Howard Black; Executive Vice President and Treasurer, Charles L. Stillman; Vice President and Secretary, D. W. Brumbaugh; Vice Presidents, Bernard Barnes, Allen Grover, Andrew Heiskell, C. D. Jackson, J. Edward King, James A. Linen, Ralph D. Paine Jr., P. I. Prentice; Comptroller and Assistant Secretary, Arnold W. Carlson.



MARCH 1956

STORY OF THE MONTH

- 124** *Long Island designs a new split . . . and discovers the patio*

DESIGN

- 142** *How to get new designs and patterns with concrete blocks*
180 *A fine old house by Greene & Greene—remodeled with respect*

ROUND TABLE REPORT

- 162** *Needed: a 4' module for living and sleeping rooms*

NEW HOUSES

- 134** *Three houses featured in current consumer magazines*
156 *New basic floor plan can grow 29 different ways*
170 *How a 12-house builder uses a top-name architect*

LAND PLANNING

- 172** *Sewage plant design and financing*
186 *Experts show you better ways to use land*

PROFILE

- 138** *Meet NAHB's new President Haverstick*

PRODUCTS AND PRACTICE

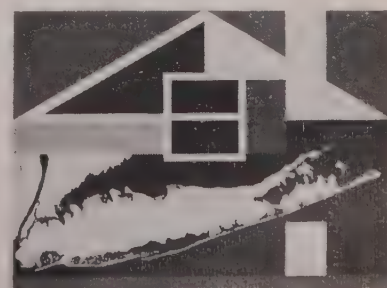
- 132** *How Long Island builds the split*
154 *These blocks improve concrete masonry*
178 *Six best building ideas from the NAHB convention*
188 *Advice for smaller builders*
218 *More product news*

NEWS


- 69** *Mortgage market continues to improve—slightly*
42 *Outlook for housing legislation: cloudy with squalls*
51 *Threatened freight rate rise may boost lumber \$2.25 mbf in East*
37 *Index to News*

DEPARTMENTS

- 110** *Events*
114 *Letters*
208 *Technical News*
284 *Technical Publications*



Cover design by Walter Allner



LONG ISLAND

This hurly-burly island is so varied that it has just about every problem builders run across — and a lot of solutions, too

Things happen so fast on Long Island that what's bust today is apt to be boom tomorrow and the only sure bet has been the split-level house.

But even that never-miss, steady seller has been changing—developing month by month and model by model into what looks suspiciously like a two-story house. That's the big design news on Long Island—you'll find a story about it on the next two pages.

More design news (and perhaps it's worth taking bets that this may be even more important than the two-story look split) is that the first real indoor-outdoor houses are beginning to appear in larger developments.

Some ranches rival splits

Pacemaker for the trend is a "lanai" ranch, which you'll find on page 129. This house *may* presage a new interest in the one-story house, and will *certainly* head a trend toward patios and barbecues. It's one of several ranches that are giving the split a run for the money.

Long Island builders are packing more and more value into their houses. They sell to shrewd customers—so you may find some pointers in Long Island's businesslike approach to what constitutes "value."

Long Island house buyers are impressed by size. They like big bathrooms, large foyers, huge closets, gigantic kitchens. They don't ask room sizes, but judge size by the feeling they get when they walk into a house (so builders often put mirrors on the wall facing the entrance, or across one width of the living room). They are not

apt to question the usability of the space—the bigness satisfies their urgent need for a bigger place to live.

Why bigger houses? Because Long Island customers are changing from renters to repurchasers, and because home buyers have more money to spend, and more children in their families.

To meet these different needs, Long Island realtors (who handle the selling like subcontractors for the builders) are increasingly aware of the importance of extra features like these:

Elaborate kitchens, with built-in range units, colored cabinets, lots of appliances and a generous eating area.

Several baths, the plusher the better, with divided baths prevalent, and often dressing rooms off the bath.

Three bedrooms minimum, four practically standard.

Family rooms everywhere—in the basement, next to the kitchen, behind the garage. In many cases, the family room is coupled with a half-bath. Often, this room is called the "mother-in-law" room, and is used as a fourth or fifth bedroom.

Full basements. They are a must, part of the Long Island home buyer's craving for a big house.

Closed, attached garage. It is taken for granted, except in minimum houses. Where a garage is optional, it's almost always purchased . . . it is considered part of the



1945

Aerial views show marked contrast before and after the building boom. Today the famous potato-patch in the center of Long Island is a thing of history and suburban cities have taken up most of the flat, "easy" land. The building has pushed out almost past "the point of no return"—the point beyond which commuters will not travel—a line which builders now say stretches between Centereach and East Patchogue.



1955

house. In one high-priced house, there is a low step along the back of the garage. The builder calls this his "Cadillac stop," sells it to home buyers by telling them their wives can't ram the family Cadillac through the garage's back wall.

Two or three eating areas. Quite frequently one is a formal dining room. One formal dining room is in a house that sells for \$12,990.

Air conditioning (just beginning to be a factor). It's in highest-priced houses—but builders sell warm-air heating (long a poor second to hot water heating on Long Island) by stressing easy convertibility to air conditioning.

Patios, barbecues, sliding glass walls and terraces, all increasingly important.

Besides packing lots of value into their houses, Long Island builders are thinking of new ways to sell.

Advertising budgets have jumped. One ad man estimates the jump as from 1% of the cost of the house to 2% or 3%. And there are trade-in plans. Bonded Realty Corp. offers a variation of the trade-in—the builder doesn't actually purchase the prospective customer's old house; he farms out the listing of it to a "subscribing" broker in the customer's old neighborhood.

As builders get smarter, so do the customers. They check values at home centers like the Dime Savings Bank in Brooklyn or the Island Federal Home Center. A Home

Buyers' course given by the Long Island Home Builders Institute has 2,000 graduates. They know, to the penny, what they can buy for their money.

So besides changing their houses, the builders' attitude is changing. Long Island builders used to talk about what they called the latest "gimmick," now they talk about a house's utility, its space. They know buyers are shopping around, comparing value for value.

Land is biggest problem

The change in buying has influenced the Long Island market. But another factor is worth noting—because it is a problem all of building shares. That is the problem of finding good, workable land.

Long Island's flat, "easy" land has been eaten up by the boom years of development building, so land cost has skyrocketed. On Long Island, land that used to cost \$1,000 an acre now costs \$4,500 for a lot 70'x100'. And recent zoning regulations have forced lot size increases.

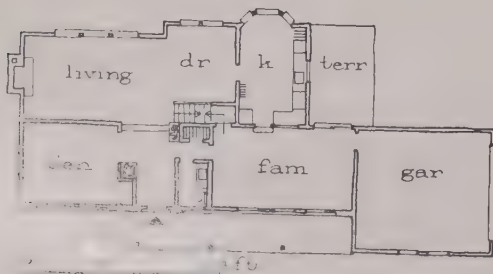
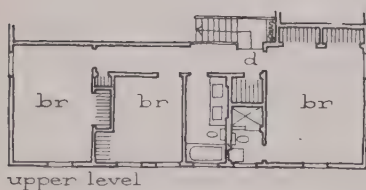
This pushes up house cost and lot size—which suits the repurchasers who want bigger houses but changes the builder's set-up.

Farther out, past commuting lines and zoning restrictions, there's "easy" land at comparatively low cost, and here builders are still sticking to minimum-cost houses to sell to Long Island industry workers.

This points up a moral for every builder: know your land picture before you decide what house to build.



\$30,500 buys this two-story-look split at Gay Lore, Dix Hills Colony in Huntington. Builder is Nicholas Piccione; Kern Realty, sales agents



Here is Long Island's big news . . .

On Long Island, selling seldom stands still. Most steady sales factor, up to now, has been the split-level house, sure-fire and dependable seller.

But even in this constant, there is the inconstant of style changes. From the side-to-side split was developed the front-to-back, then the back-to-front. And now, the back-to-front is changing to become a split that looks like a two-story house.

This house sells, and sells well, in every price range because it's a "natural." It has two-story prestige (the "big" house Long Island customers crave) and the talking point of split design (look, Ma, less stairs to climb!) and, like all splits, it fits more space under less roof.

Does it represent a trend toward the two-story house? Probably not, because it's still hard to sell full flights of stairs on Long Island. But for all practical purposes, these houses look like two-story houses.

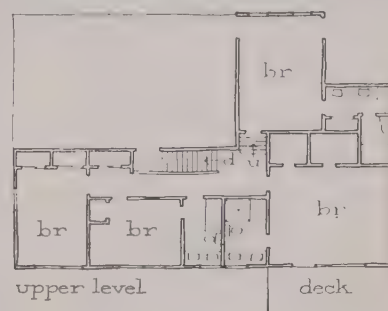
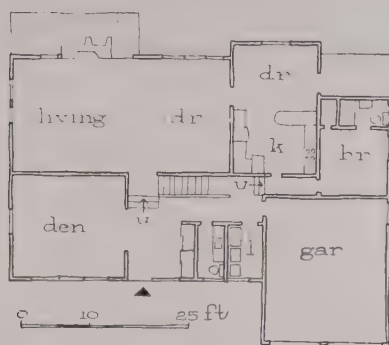
J. Alex Langley



for project; Herman York, architect

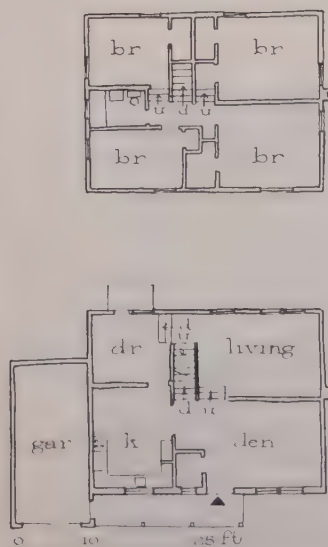


\$59,990 model at Meadow Woods in Great Neck. Completely air conditioned, five bedrooms, four and one-half baths, two patios. Sam Guterman, builder; Sol Berman, sales agent; Egir P. Hermanovski, architect.



the split gets a two-story look

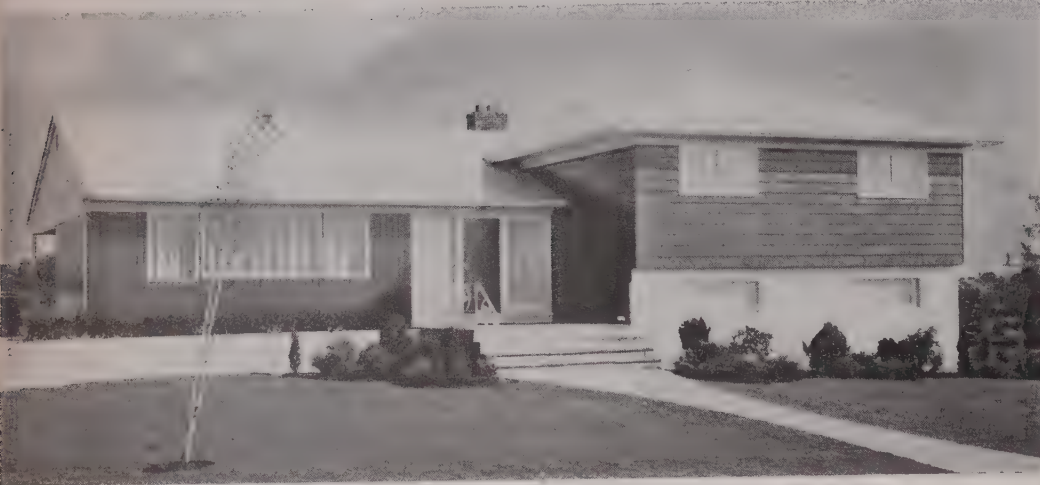
Photos (top r. & below), Richard Averill Smith



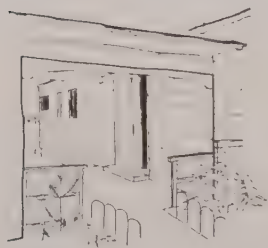
\$13,490 house at Briar Point, Brentwood has four bedrooms, two dining areas and a recreation room, extras that help sell it. Builder, Larry Elkind; Klein & Parker, sales agent.

Side-to-side split is still a best seller

Photos: Richard Averill Smith



"Sea Breeze", most expensive house at Harbour Green, sells best



Briar Point's breezeway is a popular feature



The plan of this house started out with a two-car garage. But when the builder, Larry Elkind, found that 2-car garages were not selling another builder's model, he changed his plan.

He put a breezeway between the house and a single garage, and a sliding glass door in the living room, leading to the breezeway.

This ranch is selling well in competition with splits, and one of the reasons may be the increasing interest in outdoor features.

The model sells for \$13,190, has three bedrooms, a separate dining room.

Breezeway, lots of space help this ranch sell well, despite two competing splits.



Patio with barbecue enlarges living space, is approached by passageway (right)



Photos: J. Alex Langley

This patio sold houses—even in a snowstorm

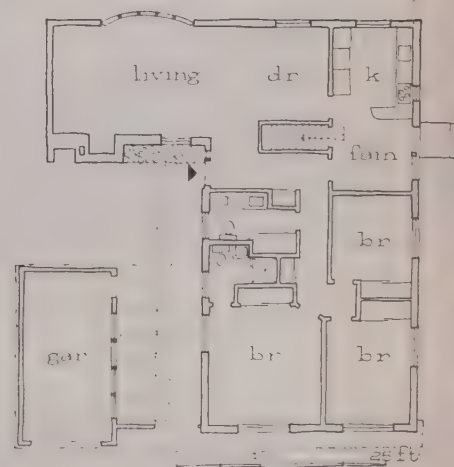
In most parts of the country, a patio or "lanai" like this is not an innovation. But in cold-winter Long Island, houses once sold quickly without any outdoor-living features at all. But as builders look for new selling points to perk up sales, they may well turn to solutions like this which have worked so well with prospective homebuyers elsewhere.

This "Lanai" model at Morton Village in Plainview is one of Long Island's rare cases of a ranch that outsells a split. The house sells for \$21,990, has a General Electric kitchen and laundry, three bedrooms, two baths.

The architect, Rudolph A. Matern, feels that higher land prices will make for smaller lots (for low-cost houses, and where zoning regulations permit). Therefore, he believes, more imaginative lot treatment by architect and builder alike will be needed to make the houses sell.

Perhaps, at long last, Long Island builders will fence lots and provide terraces with lower-priced houses. If so, the land problem will have a silver lining for house buyers.

And, if sales of this house are an indication, for builders as well.



From street, patio is not visible, unusual privacy for Long Island.

These features help sell Long Island houses



Fully furnished models are a must. At Country Estates in Roslyn, decorator Richard Mauro used Frank Lloyd Wright fabrics.



Wrought iron railing makes entrance "hall" for living room. Dining area, left, family room, rear. Fountainvale, Huntington.



Large entrance halls impress Long Island buyers, are featured whenever possible. Foyer at Morton Village, Plainview.



Sliding glass walls, with a terrace beyond are new for Long Island. This family room is at Harbour Green, in Massapequa.

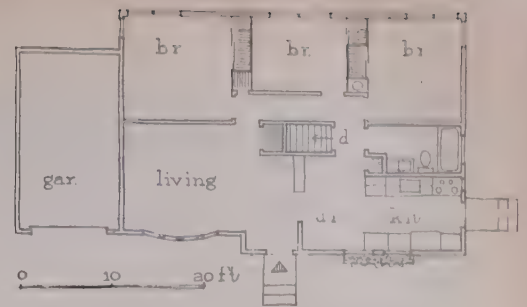


Built-in oven and range are typical of almost every kitchen. At Harbour Green in Massapequa, dishwasher is included, too.



Open kitchen at Eastwood Village in Centereach was closed off after buyers objected to open plan. Now, it sells well.

Photos:
W. Conrad Kimball;
Richard A. Smith;
J. Alex Langley



This ranch house . . . and this kitchen . . . a sales-winning package

Still selling: the bargain house

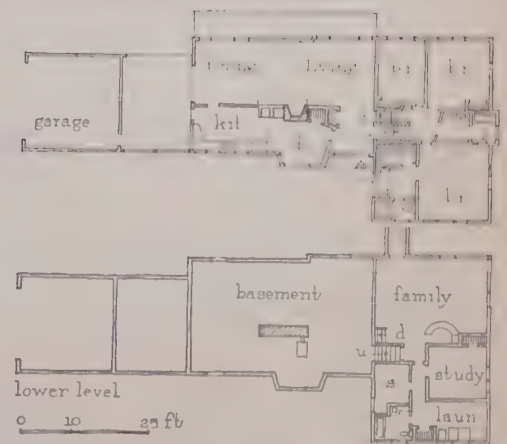
For \$11,990, this house at Chapel Hill in North Brentwood offers six Hotpoint appliances: refrigerator, dishwasher, washer, dryer, wall oven and surface cooking unit. Built by Paulsen Brothers, it is called the Hotpoint House of 1956.

This kind of packaged, big-value house is especially popular with Long Island industrial workers.

Selling more and more: the big house

More and more houses like this one by Newell & Daniel will be built as builders move to meet changing buyer requirements and different zoning regulations. At Brookville, where this house was built, prices start at \$45,900, lots are two acres of wooded ground.

The rambling design, typical of the North Shore, may become even more popular as builders put up bigger, more expensive houses on large lots.



Photos: County Photo Service





Split levels at Larry Elkind's Briar Point Park go up in progression as one trade follows another in tight order. Prices: \$10,990 to \$11,490

HOW LONG ISLAND BUILDS THE SPLIT

One of the country's best buys, its economy is due more to good management and stiff competition than to better building techniques

Long Island's typical split level house goes up on a schedule that is as tightly controlled as a factory assembly line.

And every step of the job—from grading the site to the final clean-up of the finished house—is let out on subcontract. The builder himself gets along with only supervisory and office employees.

This system, like much else on Long Island, stems from the area's proximity to New York City. When the great exodus to suburbia began in 1946 a million prospective home buyers quickly made the Island the East's biggest and busiest home building market.

Labor and subs are plentiful

The opportunity on Long Island attracted thousands of new workers and multiplied the subcontractors into the hundreds.

And the industry's own expansion sharpened subcontractors' competition and narrowed labor specialization to a point that today the system seems to revolve around a complex of close estimators and highly specialized artisans.

But when all the bids are in and 40-odd subs are ready to start work, you need to put the builder back in the picture. He sets the timetable and he keeps everybody on time and out of each other's way. Four

months from foundation to completion means, for instance, Sheetrock crews will be working three weeks after framing starts. Step by step, house by house, the builder plans, coordinates, expedites.

Builders keep tab on subs

Builder Emil Morton runs his projects with a "rough" superintendent, a "finish" superintendent, and a third man who acts as project manager. The rough superintendent is responsible for grading, foundations and framing. The finish man is responsible for the rest. The super on the job is the boss—so much so that, if he is not entirely satisfied with a subcontractor's work, a word from him can hold up payment. The schedule is so important, Builder Larry Elkind points out, that if a sub's crew loses two days on the job he knows he must double his men until he makes up for the lost time. Only by meeting scheduled completion dates can the builder depend on drawing his construction loan as planned.

Trades don't crisscross each other

Managing the individual worker is the sub's job and no small assignment when specialization is carried to the point that one man performs a limited repetitive process like installing door knobs and locks or hooking

up wash basins. But it is up to the builder to plan for whole trades. For example, he lays out his wiring on a schedule that permits the electrical crews to be in the house only once. (Even under FHA requirements that wiring must be inspected twice, an entire crew of electricians will not work a house twice, nor be there at the same time as the finish carpenters.) On a Long Island schedule, a good team of tradesmen can literally "run" through a project, one crew finishing its job as another walks in the door.

Builders grow big, subs prosper

Long Island's system has helped many a builder grow big. It is a commonplace there today for the builder to number his annual starts in three figures. As you'd expect, the Island's subs have prospered too. Some are known for taking an industrial rather than a craft approach. Jack Segal, a professional engineer and heating contractor, is a case in point. Segal performs a lot of his work in his shop (see photo, lower left), has designed special machinery to fabricate duct work

Despite the fact that union scales are high, and that the builder and all his subs must take a profit out of the sales price, the Long Island system gives the home buyer a lot of house for his money. If not the country's best architectural design, the typical Long Island split is, dollar for dollar, certainly one of its outstanding housing buys.

Based on FHA's most recent study of comparative housing costs, Long Island (specifically, Jamaica) costs are well below those of cold-winter centers like Boston and Albany and dramatically lower than found in any large Midwestern city. But nearby Newark and Philadelphia are even lower, enough so to make Long Island's FHA cost records "good" rather than "best." (For details of the FHA study see p. 45, H&H, Sep. '55.)

Radical changes are avoided

The old saw that "the good is the enemy of the best" often applies to Long Island's construction methods. For all of the Island's good results are obtained with scrupulous avoidance of radically advanced technology. Builders never sponsor methods that would require them to impose sweeping changes in the way their houses are built.

There are many reasons for the builders' attitude, none of them foolish, but all of them motivated by the



Fabricating ducts at Jack Segal's plant is an engineered operation for both air conditioning and hot air installations.



Framing for a split level looks like a maze of 2x4's

short rather than the long view. And most of the builders' reasons go back to the sub who, after all, can hardly be expected to see the problem whole. That is why a sub will often bid lower to do a job the way he knows rather than spend time learning a better way.

Subs call many turns

Some critics have called the Long Island builder "the prisoner of his subs." This may be too strong a statement, but certainly most Long Island builders are content to specify "what" and "when," leaving it up to the sub to say "how."

Explains big Builder Leon Miller: "We don't care how the subs do the job as long as they give us the best price and use good materials and good workmanship."

So Long Island's building techniques have changed relatively little from those in vogue before World War II. The subs' cutthroat piecework system is such that the builder just goes along with old methods. "It costs money to use a new method, to teach it to the men, and no one wants to pioneer," says Builder Ned Epstein. Other builders agree: "They bury pioneers."

Delays must be avoided

With their four months' production schedule on the split level house, builders want to avoid delay more than anything else. They want the sub to do the job in the sub's fastest way, and when it is necessary, a builder will purchase more expensive material just to get the job finished.

"The Long Island builder wants to build houses he is sure will sell. . . . I believe in applying new methods and techniques but how can I argue with a builder if his present houses are selling," asks Builder-Banker Emil Keen, ex-head of the Long Island Home Builders.

What do Long Island builders miss by sticking to the older techniques? Hardly a house is built on Long Island with trusses. Yet studies have shown over and over again that trusses save time and money.

Says Builder Alfred Kessler: "This is a new idea and when you talk a roof truss to a sub he's scared and

continued on p. 192



Clean-lined contemporary house will help shape the building wishes of many prospective home buyers

Better Homes & Gardens promises its 4,050,000 readers

THIS HOUSE WILL MAKE YOU WANT A NEW HOUSE

Familiarity is the first step toward buyer acceptance. That's why the publication of contemporary style houses like this in leading consumer magazines is important to the home building industry.

For with pictures of the house you see on this page, the March issue of *Better Homes & Gardens* offers its readers convincing evidence that today's new houses have something extra that will add greater satisfaction to everyday living.

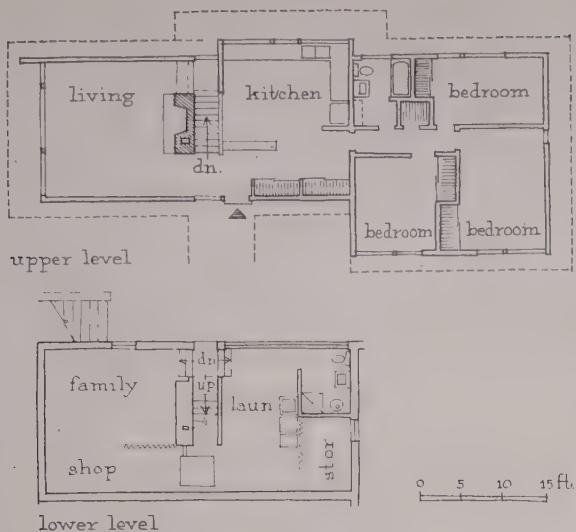
Architect Hugh Stubbins has put maximum living into minimum area. The real size of the house is 1,313 sq. ft.; 722 sq. ft. in the lower level. But the apparent size of the house is much greater.

How was this visual and functional enlargement

achieved? Stubbins made resourceful use of: (1) glass; (2) color; (3) partial walls; (4) outdoor living areas; (5) modern materials; (6) dual-use areas; (7) skillful furniture arrangements. It's a safe bet that *Better Homes & Gardens* readers will use these house-stretching features as a yardstick when they judge your model house.

So this house is worth studying—first, on its own merits—and second because of its influence on thousands of prospective home buyers.

Architect: Hugh Stubbins Associates, Cambridge, Mass. Builder: George Fichera, Andover, Mass. Owners: Mr. & Mrs. Jules Cesarini, Andover, Mass.



Consumer Magazine Review:
news from the March 1956 issues



Living room walls seem to stretch out through glass to terrace beyond



Dramatic entrance hall "sells" a house to guests (or prospective buyers)



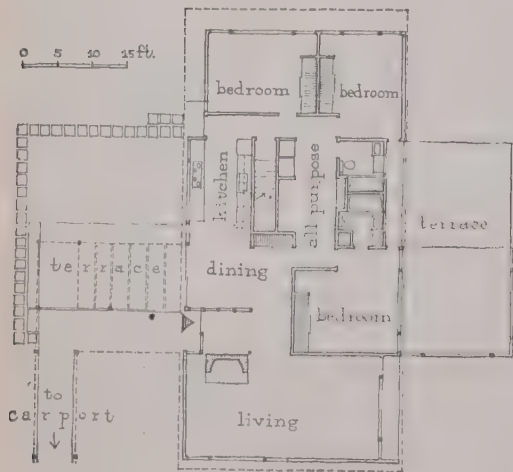
Family kitchen, part of the open area, includes generous dining space



Exterior shields house from street, gives privacy to outside living areas. Covered passage from garage adds importance to entrance



Outdoor areas are integral part of house design



Good Housekeeping shows its readers

"The nice new house on the corner"

The growing acceptance of contemporary design as part of every-day life is evidenced in the neighborly title that introduces this house to 3,300,000 readers of *Good Housekeeping's* March issue.

The emphasis on living space, utility and outdoor living areas, and the recognition of the home owner's need for privacy are evidence that the way a house works is as important to *Good Housekeeping's* readers as the way it looks.

The style of this house is not half so important as the fact that it has a good measure of the "livability" that the magazine feels is the basis for enthusiastic reader acceptance.

Architect: Tweddell & Wheeler; Landscape architect: Hans. J. Wachtel. Builder: Jacob Boettcher. Owners: Dr. and Mrs. Howard F. Pfister.

Panels of deep, bright blue help make the exterior visually exciting; terrace, with sun and shade spots, will be used for outdoor living





Reynolds Photography, Inc.

Warm familiarity of the exterior design appeals to magazine readers who represent a large factor in the home buying market

American Home features nostalgic appeal with

“A home built to look like a barn”

Perhaps *American Home* has had some fun with a tongue-in-cheek title. But they chose this house to present to their 3,000,000 readers this month for serious reasons.

A house that looks familiar has dollars and cents appeal to a large part of the home building market. Barn-red and white, and a rurally-rounded roof are, of course, style for sentiment's sake. But sentiment makes sales for home builders as well as for greeting card vendors.

There's nothing nostalgic about the four-level split floor plan. This house may wrap its utility in hearts and shutters—but the utility is there.

Architect: William B. Fullerton, Jr. Builder: Harry Wells and Son, Inc. Owner: John E. Honsinger, Kansas City, Missouri.





Joseph B. Haverstick of Dayton, Ohio

MEET NAHB'S NEW PRESIDENT HAVERSTICK

by Carl Norcross

Of all NAHB's 14 presidents, Joe Haverstick probably comes closest to being a typical US builder.

In size of building operation he is the smallest NAHB president.

He and his brother Bob built 45 houses last year, averaged about 70 per year before that, once got up to 125.

"I'm one of those guys who believes you don't have to build 1,000 houses a year to make money," he says and this philosophy has helped account for his rise in NAHB where he campaigned as the "little builders' friend."

"Joe is a small builder who knows the problems of the average builder," said a Dayton colleague recently, and that sums up most builders' attitude toward the new president.

Relaxed and friendly

At 44, Joseph Burkholder Haverstick is a craggy, relaxed man of 6' 3½". He is friendly, cheerful, has a good sense of humor, and thoroughly enjoys his family life in Dayton. The family—his wife Helen, their three boys, and an airdale named Suzy—lives in a big, comfortable house.

The scene bespeaks the successful business leader: the colonial house ("You can't beat a center hall house," says Joe), the do-it-yourself workshop in the basement, a TV on each floor ("whoever gets to bed first gets the upstairs TV," says Helen), two cars in the garage. Like every Dayton family that can afford it, they have a summer cottage on a lake in northern Michigan. Joe is an enthusiastic outdoor man and

sports follower. Both he and his wife like to watch the horses.

"Helen and I go to Lexington, Ky. for three days of the Spring meeting and three days more in the fall. It's some of the best racing in the country. Ten days before the Derby we see all the Derby runners. We're \$2 bettors."

Golf and fishing are his hobbies

With the rest of the family Joe likes to watch sports on TV, follows University of Dayton teams closely, sees the games when he can. "I really love to watch football and basketball," he says.

But he is more than a spectator. He likes golf, wishes he could play more, says: "I'm going to take my clubs with me when I travel this year. I play in the low 90's, occasionally get into the 80's. Most builders are in the 100's."

Fishing and power boats are his other enthusiasms. Their summer cottage is on Elk Lake near Travers City, Mich. Joe tries to spend ten days there early in the season and another ten just before school opens.



Helen Haverstick, who claims she doesn't know a 2 x 4 from a 10-penny nail, has missed only two of many NAHB conventions.

"I like to get up early and go fishing. It's the best time of day. It's quiet and you hear the birds and other early morning sounds."

Elk Lake connects with four other lakes which have 175 miles of shore line, so there is plenty of room for exploring in the power boat. Joe has a good camera, likes to take pictures (he took many of those shown here).

When he can't get out to play golf or fish he finds relaxation in his basement wood working shop. He is probably the most active do-it-yourselfer that NAHB has elevated to its top job. His shop is equipped with a power saw, jig saw, lathe, sander, drill press and other machinery—all of professional caliber. He scorns amateur tools, "They won't cut out six of anything the same size and shape," he says. His handiwork is all over the house: a fine mahogany coffee table in the living room, bookcases, a hi-fi enclosure—all with a professional look. "There isn't anything around the house I can't fix," he laughs. "My dad taught me how to use tools."

He's a second generation builder

Joe Haverstick was born on Dec. 17, 1911 in Michigan City, Ind., where his father was a railroader. The family moved to Chicago when young Joe was three or four and he attended kindergarten and the first grade there. When Joe was in the second grade the family moved to Dayton, where he has lived ever since.

Joe's father became a builder, put up between 15 and 35 houses a year. They were modest, low cost houses, usually built on contract. It was during the housing boom of the 20's that Joe got his start in home building by working with his father summers while he at-



At Elk Lake, Mich., Joe enjoys relaxing on his boat, fishing with his boys and getting away from city life.



Present home was built in 1948. It has three bedrooms, two and one-half baths, big garage at rear.



Summer cottage in Michigan has lots of wood paneling, was designed by Architect Roland Rosser.



Basement shop is Joe's favorite indoor retreat. He uses professional tools, makes some fine furniture.



Family group shows Helen Haverstick with Jay, 15, Ned (center), 13, and Kim who was five last month. Says Joe: "You know why they have such short names? Because my three names are too long for a firm name."



1940 house (left) was Haverstick home, first sales office. It and center houses sold for \$3,600-\$4,000. Right: 1953 house

Haverstick builds, remodels, prefabs, has motel

Commonwealth Photos, Inc.



Bob Haverstick heads up purchasing, construction, got building experience as army QM officer.



George Jaeger, Joe's father-in-law, runs remodeling end of business, is expeditor and a vice president.



Old house (left above) was remodeled for offices (left) in 1951 by Haverstick firm, then rebuilt into handsome offices below. Ground floor and basement are rented. So Joe enjoys his second-floor almost rent free.

1951 house built by Haversticks sold for \$11,500. Firm built about 70 houses that year.



Variety is a Haverstick trademark. Firm avoids "look-alike" houses side by side, builds pleasant neighborhoods.



National Homes' Ranger models added variety in price and design to well laid-out Haverstick subdivision.



Haverstick Holiday Inn, near Toledo, will open in May.

tended Steele High School. His first job was as a truck driver's helper, for which he got 25¢ an hour. "That was really money." He graduated from high school in June, 1930 and went to work full time for his father. But the depression soon closed them down.

He studied civil engineering

"I had a good friend in the man who taught me Sunday school in the Methodist church while I was in high school. He lent me some money to go to college." (The Sunday school teacher, Don Batelle, is now the Haverstick accountant.) So Joe entered the University of Dayton in Sept. 1931.

"I remember I went to see the registrar," Haverstick recalls, "and when he saw my high school grades he shook his head and said, 'It's silly to spend the money to go to college.' That made me mad. I decided to show him."

Joe worked hard at his civil engineering course and got grades averaging 89 for his first year. But in the middle of his second year "things got so desperate" at home that Joe, as the oldest of five children, felt he had to quit college and find a job.

He first worked at Delco where he ran a "giant machine that did five operations. It was a tough job and it took real physical effort. But it took no brains—all you had to do was get into the rhythm. That's when," Joe says, "I decided that I was going to do something besides work for some one else."

His next job was with the Department of the Interior's geologic survey, mapping part of Maumee Bay in Lucas County for dredging. For six or eight months he was a rodman—a job his partial education in civil engineering helped him to get and a job which he says has provided him with experience that has been most useful to him in land development and building.

He's been building since '36

"In the fall of 1934, Dad rounded up some remodeling jobs and I came back to Dayton." During part of 1935 and 1936 he sold Buicks and he and his brother leased a gasoline station. But in mid-1936 Joe went back to work again with his father and has been a builder ever since.

"I am going to advocate one thing," promises the new NAHB president. "It is that a builder should take an interest in his community life. If a builder will serve in any capacity he will sell his problems to the community. You get nothing out of life unless you

continued on page 196



As NAHB official, Haverstick has discussed housing with prominent men, here with late Senator Robert Taft.

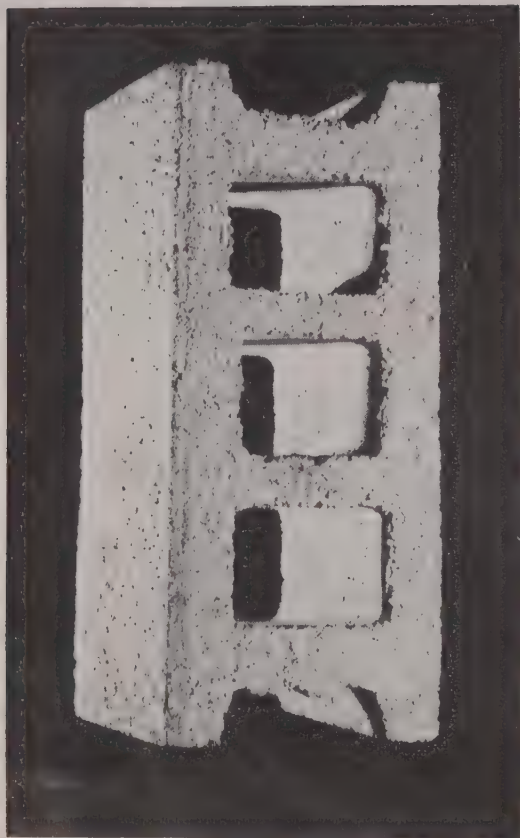


Convention chairman three years, Haverstick talks with Van Auken, Brockbank, the late Henry Fett.



As first vice president in '55, Joe traveled widely, here gives plaque to Chester Fitch, Rochester. Left, F. Tufaro. Below: with Gen. Van Fleet, Bill Zeckendorf, Haverstick helped launch Homes for Korea drive.





It wasn't so long ago that a concrete block would not dare to show its face in polite society.

Block was used in foundation walls, as a backup for brick or stucco—or on the side of the house or garage where it was least conspicuous. It was supposed to be a “cheap” material in more ways than one.

Then along came a few imaginative architects and turned the concrete block into one of the most glamorous and flexible building materials at our command. For the evidence, see opposite—and the following ten pages.

But first, here are some assorted facts to keep in mind when discussing concrete block:

1. **“Concrete block” is a collective term.** It includes every type of building block that is *part* cement. The other parts may be any aggregate from sand to volcanic rock. Each of these aggregates does a specific job: some are light, others are very strong, still others have a special surface. That's the great asset of the material: it is tremendously versatile.

BEHOLD THE LOWLY CONCRETE BLOCK..

2. **Concrete block is not without problems.** It is almost trouble-free in moderate climates; it will resist termites and hurricanes. But in the North it requires added inside insulation to meet proposed FHA U-factor requirements. And almost everywhere it needs some exterior finish to make it more weather resistant. Some concrete block problems (and ways to solve them) are discussed on pp. 154-155.

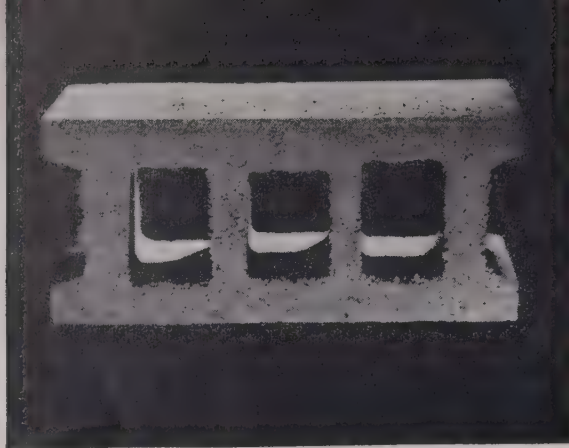
3. **Concrete block has a bright future.** The reasons are simple and obvious—and dramatized in the two pictures of Frank Lloyd Wright houses opposite: today's concrete block has almost unlimited decorative possibilities, as well as rubber-hose flexibility. Only obstacle to the expanded use of block: the current cement shortage. As soon as that is alleviated, concrete block should become one of the most popular materials in US home building.



Photo: courtesy of House Beautiful

...IT ISN'T LOWLY ANY MORE

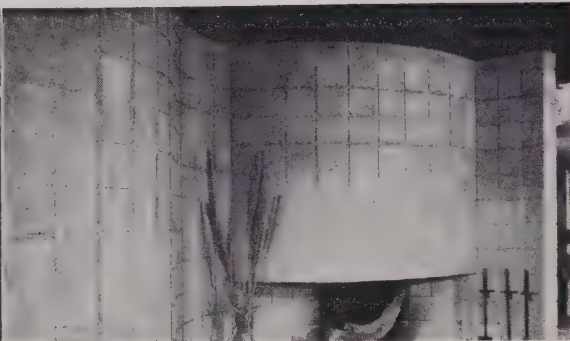




You can get almost any effect with standard concrete blocks . . .

You can get straight lines . . .

. . . or curves . . .



By using 8" wide blocks with pie-shaped joints, any mason can build curving walls without trouble. Similar effects with wood framing require complicated carpentry.

. . . smooth surfaces . . .

. . . rough textures . . .



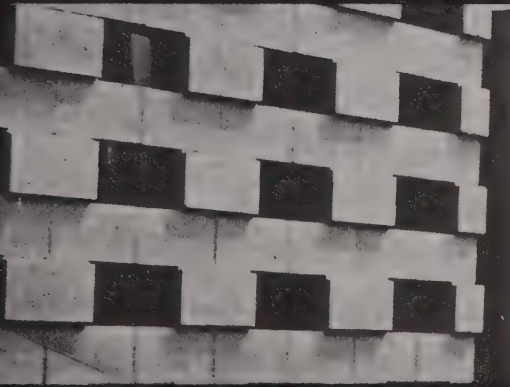
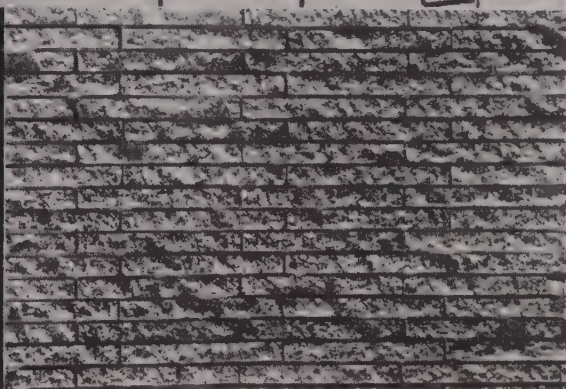
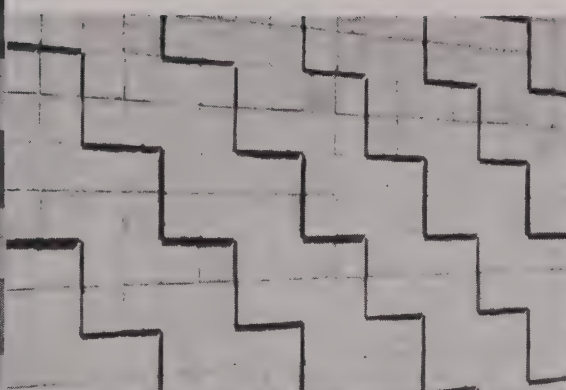
Standard blocks are made with a great variety of surface finishes and textures, including facings of ceramics, marble chips, etc. Different aggregates in the block itself produce still further variations in color and in surface "grain."

. . . or bright colors . . .

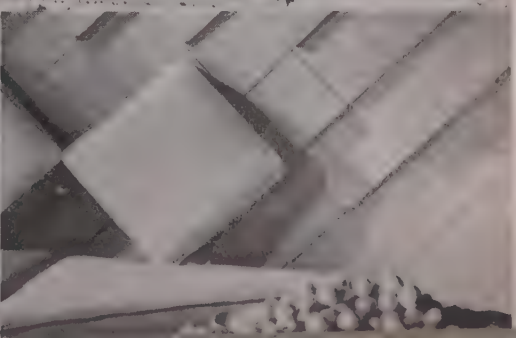
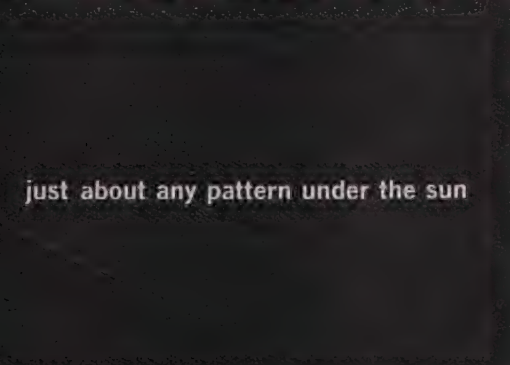
. . . and you can get



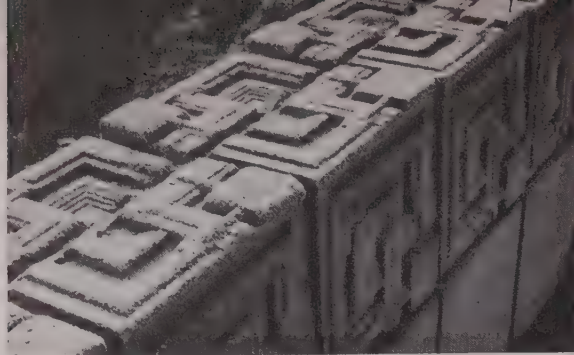
Oil and rubber base masonry paints are now available in handsome, bright colors. Traditional water and cement paints, which produce an excellent watertight surface, generally come only in light pastel shades. The new paints have expanded the color range for blocks. Brightly colored blocks are also available.



Here are some of the innumerable patterns you can obtain with standard blocks. Apart from being decorative, these patterns help to conceal surface imperfections and small cracks, will relieve the monotony of big blank walls. For details showing some simple bonds and the resulting patterns, see Concrete Masonry Handbook, Portland Cement Assn., AIA File 10-C.



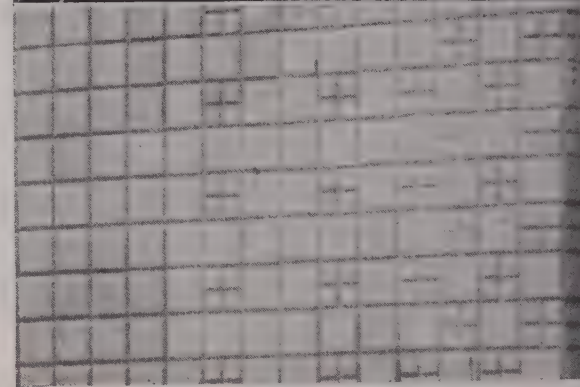
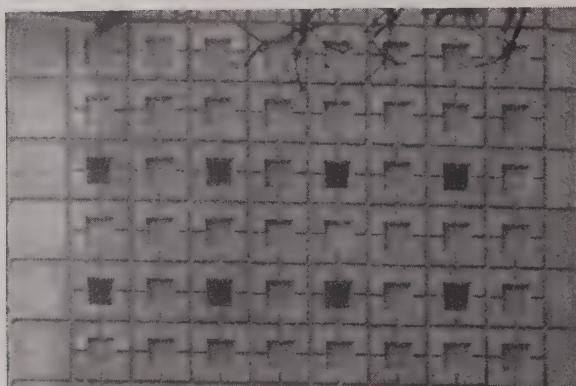
just about any pattern under the sun



... as a surface design

... with perforations

Or you can cast the pattern right into the block ...

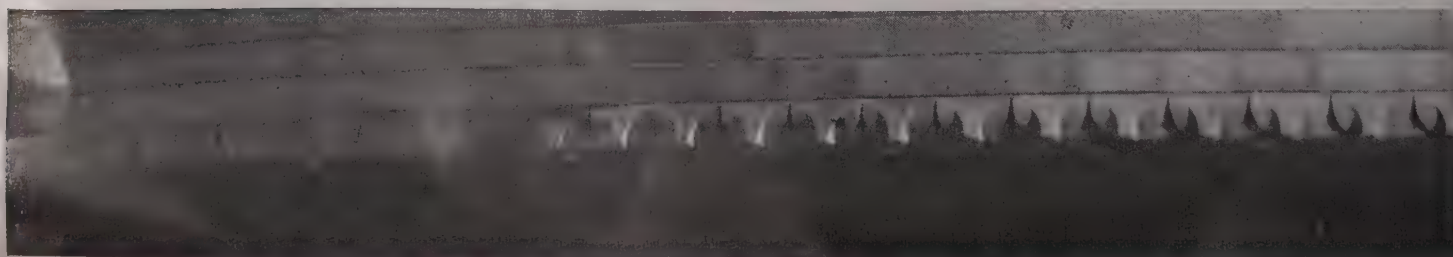


... or v-joints

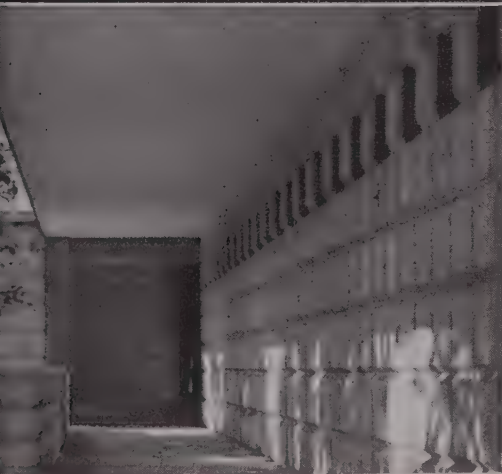
Most of the special block patterns shown here were made one at a time, in special molds. This is, of course, an expensive process but fortunately it is not the only one that will produce a patterned block.

This spring, the National Concrete Masonry Assn. (NCMA) will introduce a new patented device with which to mass-produce blocks with a handsome surface pattern. For the first published pictures of the new NCMA blocks, see p. 154.

The device is a patterned divider-plate that fits into the standard block-making machine. Its principle of operation is very simple: the patterned plate permits the molds and the blocks to *disengage vertically* during manufacture. Almost any plate so designed can be inserted into the block-making machine. Result: architects and builders can have plates made up to mass-produce their own designs.

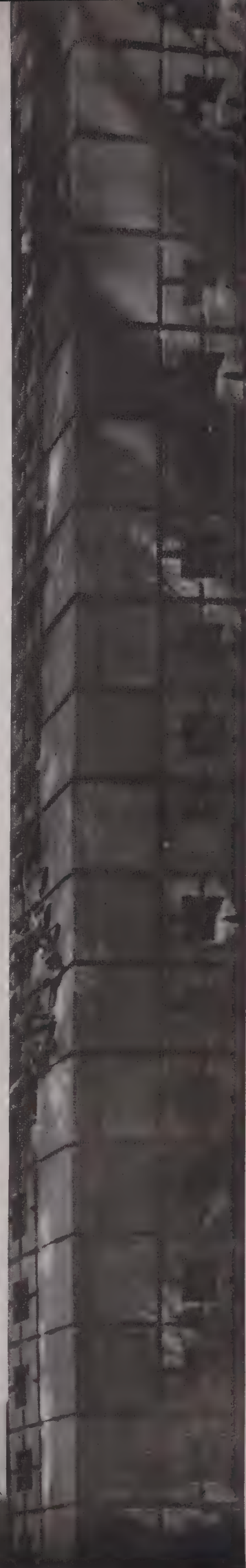


You can even make a window frame . . .



. . . a grille

. . . or a frieze



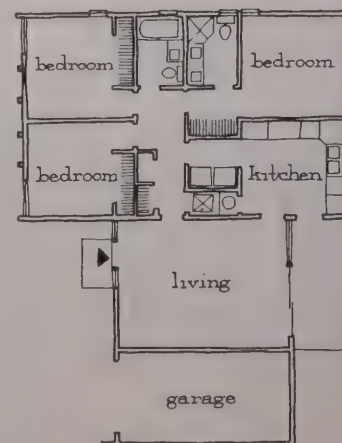


In a builder house **concrete block for glamour**

When one of the country's most consistently successful builder-architect teams turns to concrete block for glamour this is news indeed.

For three consecutive years—1953, '54 and '55—Builders Pardee-Phillips and their architects, Jones & Emmons, have won top NAHB awards for residential planning and design. And they have won the awards with houses like these—houses built of patterned concrete block walls.

This particular community is located in north Las Vegas, Nev. The houses sell for around \$12,000 to \$15,000—i.e. they are not low cost. Yet “common” concrete block was used in all of them, and used well. In an area of almost permanent sunshine, the architects believed that the patterns in light and shade created by standard, projecting blocks would look highly decorative. Three hundred and forty home buyers agreed, decided that this type of concrete block treatment was for them, too.





In an exhibition house **concrete block for decoration**

"We haven't even started to explore all the ways of using standard concrete blocks," say Architects Smith & Williams, who designed this exhibition house for the 1955 Los Angeles County Fair.*

Here is concrete block used as a perforated grille to give privacy and shade to a terrace without cutting off the breezes. Next to it is another block wall, this one as deeply textured as an Irish tweed. Its components: standard Rocklite units staggered to create a rich, three-dimensional pattern. Finally, as a foil to the patterns, there is a plain fireplace—two slab-like sides of block with a metal hood between them (left).

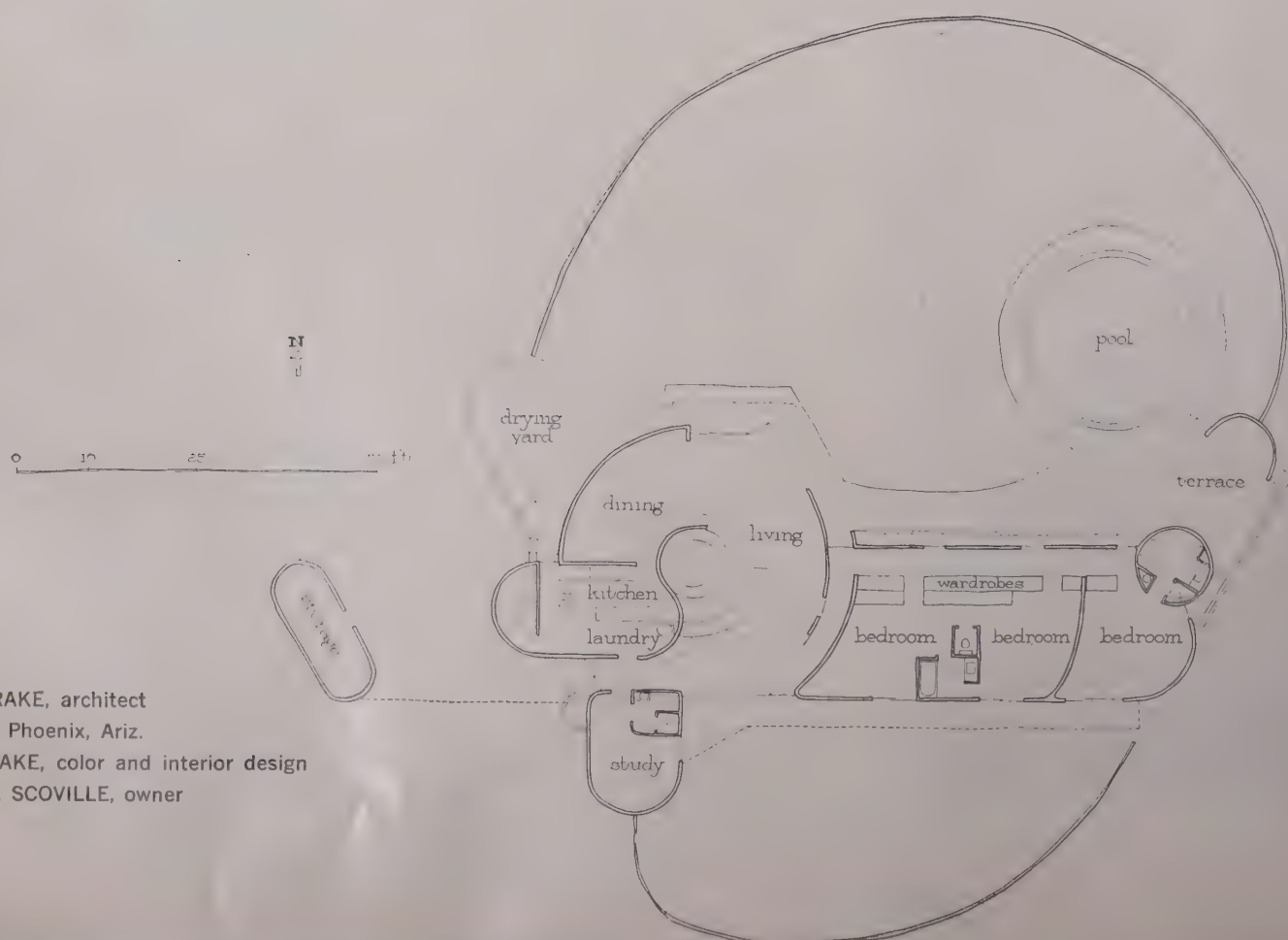
The exhibit was intended to show (as the architects put it) that "the California tract house need not be an ugly box, but can be a tasteful background for graceful living."



* For more news about Smith & Williams' recent work, see pp. 180-185.



In a custom house Concrete block for curves



BLAINE DRAKE, architect

LOCATION: Phoenix, Ariz.

HULDA DRAKE, color and interior design

HAROLD R. SCOVILLE, owner



Approach side of house has carport at left, smaller patio behind low wall at right. Larger walled-in garden is on the far side of the house.

Rarely has there been more dramatic proof of the complete flexibility of concrete block than you see in this house.

Architect Blaine Drake used curved walls to emphasize a sense of shelter and security— notions traditionally associated with curved enclosures, and especially valid in the open Arizona desert country where this house was built.

But even in a more conventional plan the idea of a curved wall frequently makes sense, and is discarded only because a curved wall would be too expensive to build in wood. Drake found he could build

some very tight curves with 8" x 8" x 8" blocks and pie-shaped mortar joints, using a stacked bond (continuous vertical joints). This bond, according to Drake, has another interesting feature: it will rarely crack so long as it has been horizontally reinforced. In the desert, where great temperature changes may occur every few hours, cracking is a serious problem, and Drake has found that cracks usually appear unless expansion joints have been provided. With this bond he has had no such difficulties—partly because of less movement in curved walls.



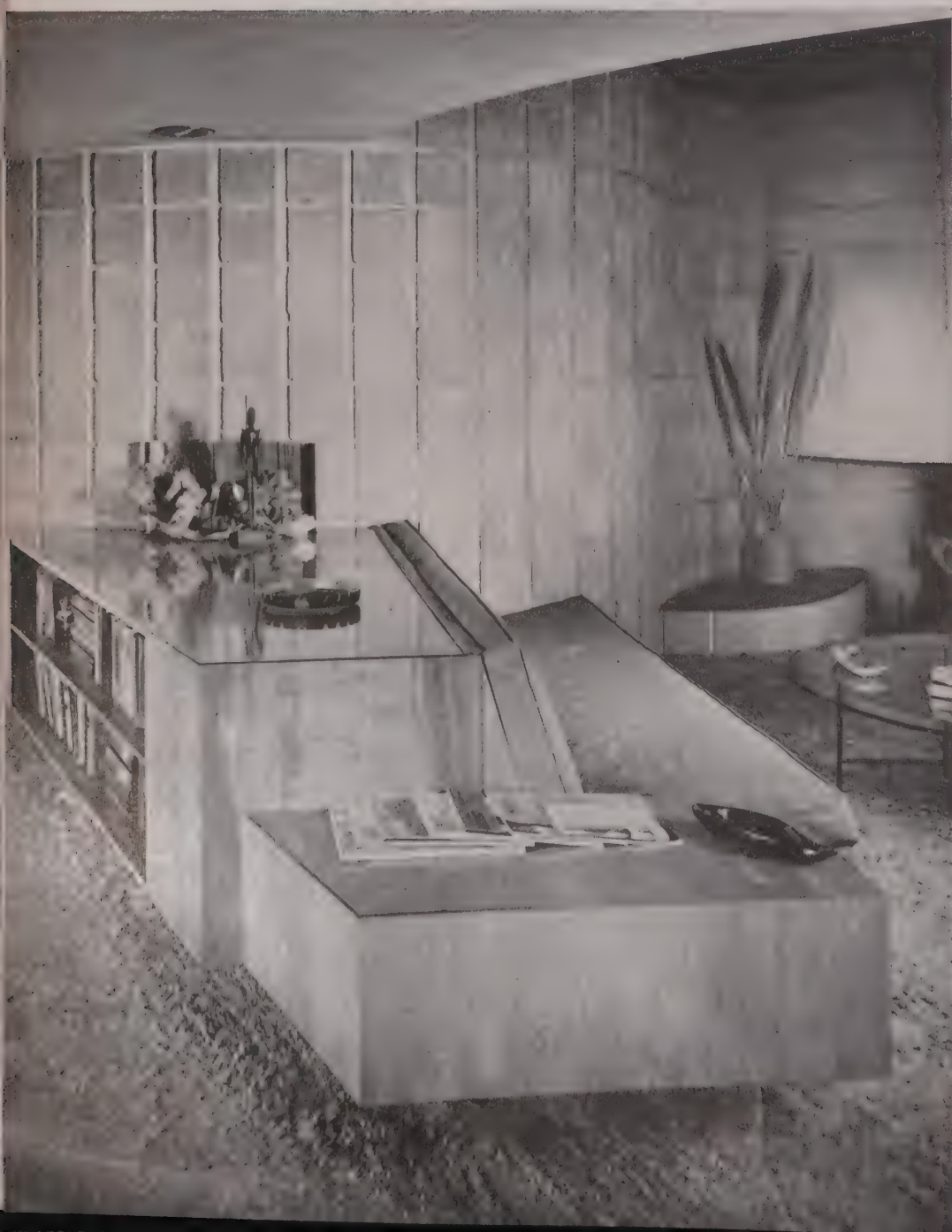
Circular pool is part of walled-in garden



Stacked bond is carried through patio walls as well



Sheltered terrace overlooks pool



Interiors on these pages show how easily Drake built sharp curves by using 8" x 8" x 8" pumice blocks, and how gracefully the furniture can be adjusted to such curves. Even built-ins present few problems.

In this custom house
**concrete block for
elegant interiors**



Architect Drake used a pumice block to build this house, believes it is a fine material for his part of the country. Says he: "It has long life in sun and heat. It has good reflective qualities and rather good insulation value. On the west walls I generally use a loose filler insulation in the hollow cores of the block."

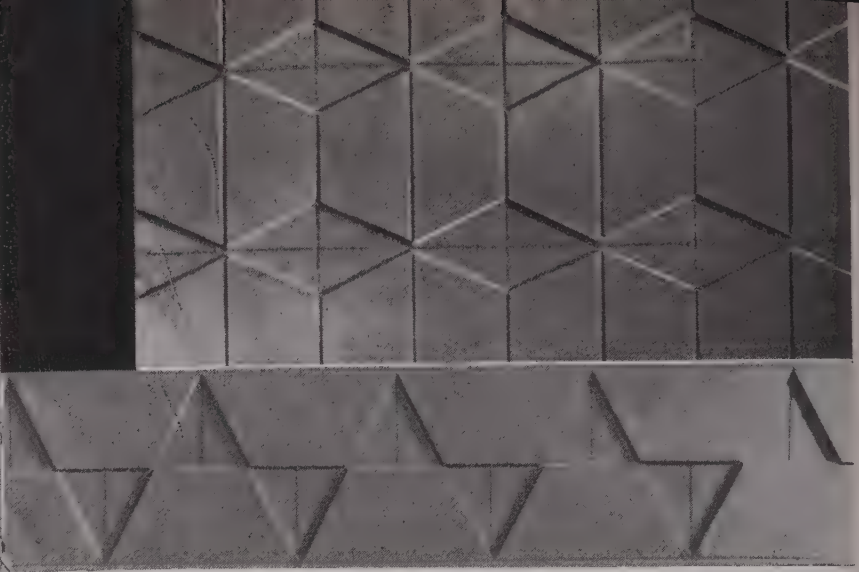
Drake's chief problems in working with block have been due to the uneven quality sometimes found in the finished product. He believes excellent textures can be obtained by controlling the mix

carefully but pumice block manufacturers will sometimes reduce the proportion of the pumice aggregate to save money. If the proportion of sand and gravel is thus increased the resulting block will be denser and have less insulating value.

In finishing his block walls, Drake likes to use clear silicone waterproofing because it lets the block retain its natural light gray color. Occasionally he will add a little color to the silicone to give the block a color stain. For more ways to waterproof block walls, see p. 154./END.

CREDITS

p. 142—photo: Walter Daran; p. 143 (top) architect: Frank Lloyd Wright, photo: Ezra Stoller, courtesy "House Beautiful" (bottom) architect: Frank Lloyd Wright, photo: P. E. Guerrero; p. 144—(top) photo: (first row) architect: Frank Lloyd Wright, photo: P. E. Guerrero; architect: Blaine Drake, photo: Frank Gaynor; (second row) architect: Frank Lloyd Wright, photo: Ezra Stoller; architect: Jones & Emmons, photo: Dale Healy; (bottom) architect: Marcel Breuer, photo: Ben Schnell
p. 145—(first row) architect: Smith & Williams, Frashers Foto; courtesy National Concrete Masonry Assn.; courtesy Portland Cement (second row) courtesy NCMA (third row) courtesy Portland Cement (fourth row) courtesy NCMA (fifth row) courtesy NCMA; courtesy NCMA; architect: John Hill, photo: Maynard Parker, courtesy NCMA
p. 146—(left, top to bottom) architect: Frank Lloyd Wright, photo: Ezra Stoller; architects: Wisniewski, Patrick, Cappuccilli & O'Hare, photo: Morley Baer; architect: Alden Dow, photo: Elmer Astleford (right top to bottom) architect: Frank Lloyd Wright, photo: Ezra Stoller; architect: Alden Dow, photo: Elmer Astleford (frieze, bottom) architect: Frank Lloyd Wright, photo: P. E. Guerrero
p. 147—(left, top to bottom) architect: Frank Lloyd Wright, photo: Ezra Stoller; architect: Alden Dow, photo: Elmer Astleford (right, top to bottom) architect: Alden Dow, photo: Elmer Astleford; architect: Frank Lloyd Wright, photo: Ezra Stoller; courtesy National Concrete Masonry Assn. (extreme right) architects: Wisniewski, Patrick, Cappuccilli & O'Hare, photo: Morley Baer
p. 148—architects: Jones & Emmons, photo: Dale Healy, builder: Pardee-Phillips
p. 149—architects: Smith & Williams, Frashers Foto
p. 150-3—architect: Blaine Drake, photo: Frank L. Gaynor



Patterned blocks can be arranged in a wide variety of wall designs. All the above designs were made with one of the new patterned blocks developed by the NCMA. Each block has a triangular recess based on a 4" module.

THESE PRODUCTS IMPROVE CONCRETE MASONRY

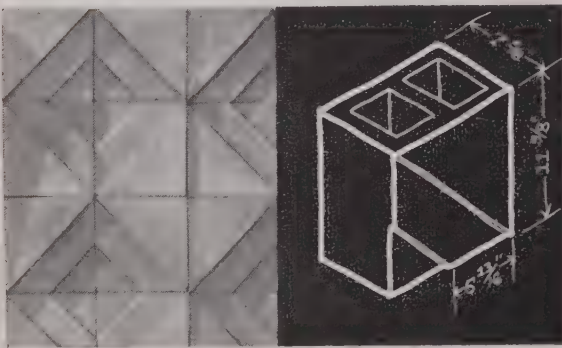


Diagram shows how a modular pattern is molded into the face of a standard-size block. Identical blocks can be combined to give a double-diamond effect, as in photo. Units are made by North Hollywood Concrete Tile Co.



Silicones do not change the appearance of masonry. Photograph shows how a silicone water repellent is applied to a block wall with a low-pressure spray. Within two to 12 hours the solvent evaporated, leaving a smooth, protective film over the exterior surface.

Until recently, the concrete block industry was plagued by such major problems as how to make block walls look less monotonous, how to waterproof them, how to reinforce them and how to give them more color. Now there are solutions to all these problems—new devices that produce patterned blocks, new sprays that waterproof the wall without changing its texture and color, new reinforcing systems that reduce cracking, and new ways to give the block a brightly colored face.

Patterned blocks will be mass-produced

Now, for the first time, *standard* blocks with patterned surfaces will be available to builders and architects throughout the country. Such decorative blocks could formerly be found only in areas like Southern California where the handsome specimens shown opposite are being manufactured.

Shipping costs naturally limit the distribution of such special blocks. Now, however, the NCMA has developed a standard method that will permit any local producer to mass-produce patterned blocks. A special plate attachment is fitted onto regular block-making machines. The plates vary in design according to the pattern desired. One example is the triangular face design shown above.

Silicones repel water on smooth blocks

Silicone sprays penetrate into the surface of the block and line the pores with a water-repellent film. Because the film should not be broken, silicones work better on smooth block with small pores than on rough-textured block with big pores. The chief advantage of silicones is that they give a clear and colorless finish, thus preserving the natural color and texture of a block wall. Silicones should not be used below grade since they do not resist hydrostatic pressure encountered there.



Photos: E. J. Kirwan

Much technical information is available on concrete masonry. For a listing of important recent publication, see p. 296

Wire mesh reinforcing is easily rolled down the entire length of a wall, speedily applied between the block courses. It is cut and lapped at corners without increasing thickness of mortar joints. The type above is called "Keywall." Made by Keystone Steel & Wire Co., Peoria.

Horizontal reinforcing reduces cracks

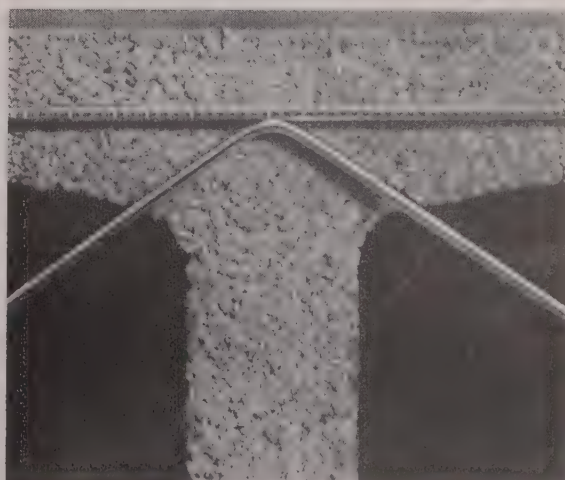
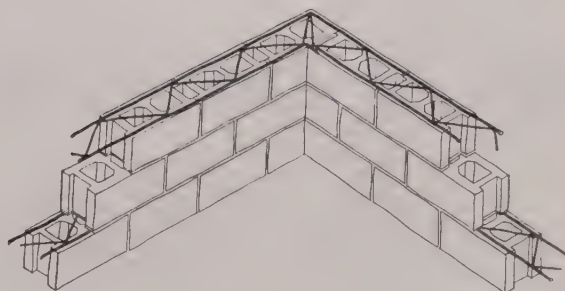
All house walls will settle or expand and contract with climate changes. When such movement occurs in concrete block walls, big and small cracks develop. So far there is no guarantee against small cracks, but you can keep cracks from spreading. One good solution is the use of horizontal reinforcing with rods or wire laid over every second or third course as shown here. The metal interlacing serves to distribute the shock of strong internal stresses.

Cement-base paint waterproofs wall

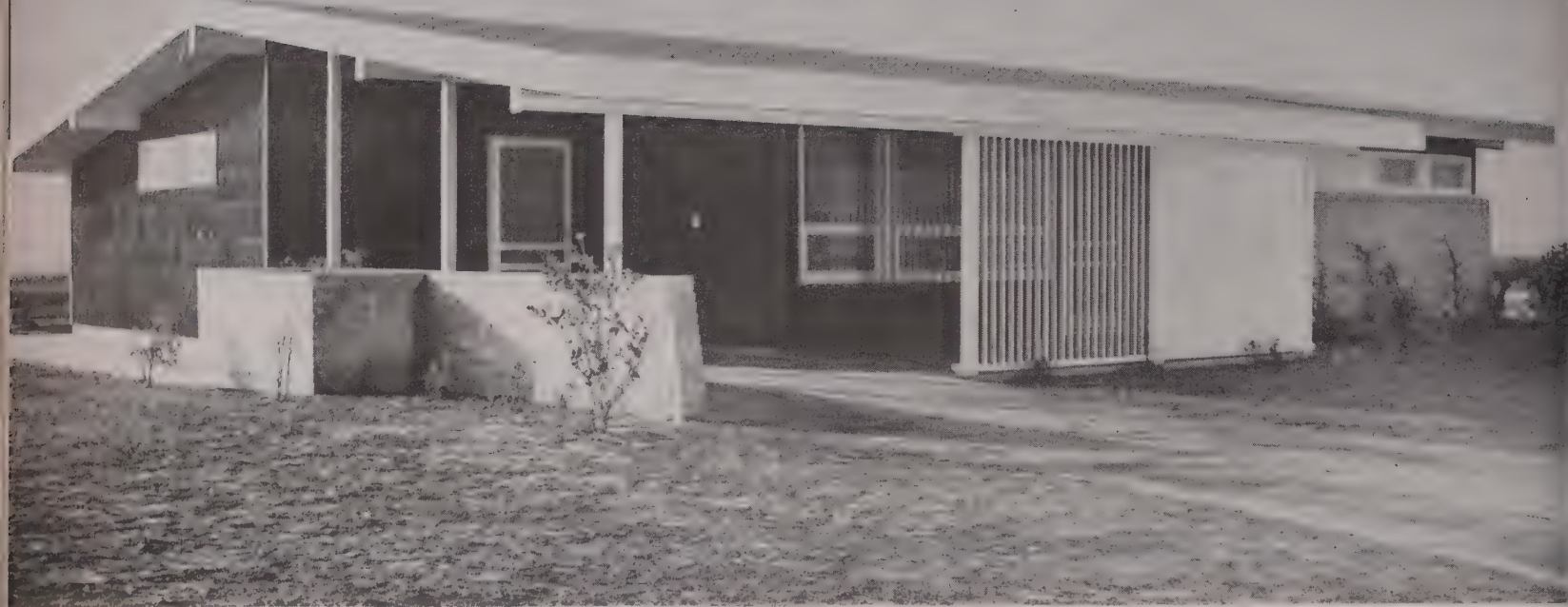
In waterproofing a concrete block wall, it is important to remember that the wall should be allowed to breathe, i.e., the paint used should not form a vapor seal on the exterior surface because this would trap moisture inside the walls. The NCMA therefore recommends that masonry walls be waterproofed with two brushed-on coats of cement-base paint, which permits vapor to escape from the inside but keeps out rain. Other paints, such as some with an oil or resin-emulsion base tend to form a vapor seal and should therefore be used only on interior surfaces or on block partitions.

Bright finishes add interest, color

There are now at least three ways of adding glamour and color to block walls: First, there are the oil, rubber and resin-emulsion paints which come in bright colors. Next, there are blocks available with integral color, made by mixing a coloring agent into the cement. (The lighter colors have been more successful than the brighter colors which tend to fade with use.) Finally, there are numerous blocks on the market today with ceramic, marble-chip or similar hard faces. These blocks are handsome and weatherproof as well.



Steel rod reinforcing is generally recommended in every second course of block and, like other reinforcing, above and below window and door openings. Rods vary in size according to type of wall. Product is called "Dur-O-Wall." From Cedar Rapids Block Co., Cedar Rapids.



Photos: Ulric Meisel—Dallas

Summit model, Hughes calls "the best one I've built"

DICK HUGHES SHOWS HIS 1956 MODEL



Hughes territory centers on Texas Panhandle. This year he expects to build 250 houses in Bartlesville, Okla.; 250 in Wichita Falls, 100 each in Borger and his home town Pampa, plus about 50 in smaller Texas cities.

Much-copied Dick Hughes doesn't let a year go by without bringing out an improved house. This year the former NAHB president has introduced his new model earlier than usual.

The Summit (shown above) is several ways better than any previous house built by Hughes. With 1,200 sq. ft. of floor space, it includes all the attributes of earlier models—open planning, low-pitched roofs and sloped ceilings, air conditioning and large glass areas. And it has some important improvements home owners will like (and other builders may adapt).

Hughes has 20 other new houses, all of which follow the Summit's basic floor plan. They range in size from 1,000 to 1,608 sq. ft. and in price from \$10,200 to \$17,500.

"If mortgage money is no tighter this year and prices don't rise too much, we'll have little trouble selling about 750 in Oklahoma and west Texas," Hughes says.



Basic plan is for 1,000 sq. ft.



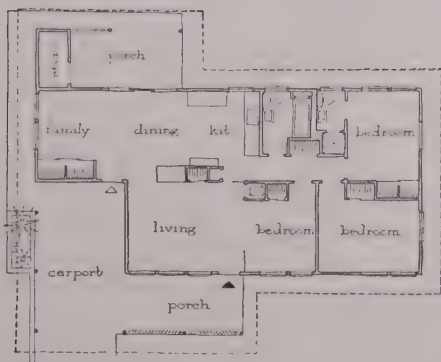
Here are three variations of the basic floor plan

Hughes' basic house (above) has minimum 1,000 sq. ft. floor plan, is an air-conditioned model, sells for \$10,200 in Wichita Falls. It can be added to in 20 different ways.

"Exact repetition of this 1,000 sq. ft. area in other models cuts labor and materials costs," says Hughes. "We can buy all items in larger quantities. All the houses are plumbed and wired alike."

Summit plan (left, and photo, opposite page) adds a 12' x 12' family room to the basic plan. The house sells for \$15,900 on a \$2,000 lot, includes air-conditioning and a completely equipped kitchen.

Largest model (photo and plan below) is 4' wider and varies from basic plan by adding a wing with two bedrooms on the front of the house. Price: \$17,500.

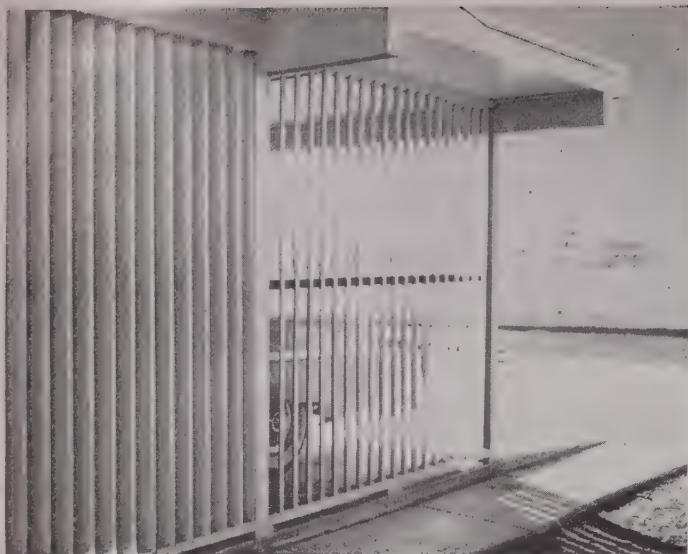


Summit model has 1,200 sq. ft.



Largest house totals 1,608 sq. ft.





Two sets of louvers face house at 45° angle. They do not block view from house, but stop view in from street. Vertical sun-and-shadow pattern is part of house design.

Louvers and big overhangs cut air conditioning costs

"We have the answer to the problem of window walls and air conditioning for the family with a tight budget," Dick Hughes says.

"I started an intensive campaign in 1951 for air conditioning in low cost houses. In 1952 I came up with a design that suited me in every way except that it provided almost no glass area, thus no indoor-outdoor living. Some say people don't want patios in our hot climate but I believe our buyers like and want patios if they can have them at the right price.

"The Summit is the answer. With louvers and 10½' overhangs front and back, 2-ton air conditioners will do a perfect job despite the large glass areas. The sun never strikes the glass."

Cost of the louvers installed is about \$76.80, cost of extra concrete and roof \$38.50—a total of only \$115.30.



Louvers and wide overhang have added advantage of providing extra living area, creating a sheltered front terrace that can be used good part of year.



Large glass area is shielded by louvers from sun heat and glare. This lessens strain on air conditioning unit during hottest weather and adds to the house's livability all year long.



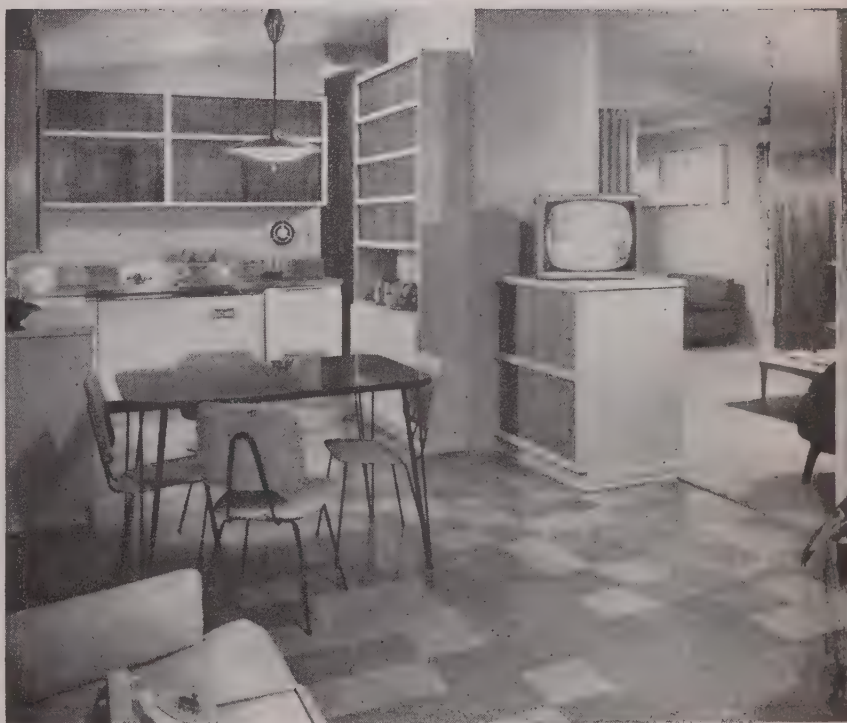
Open area flows from guest-study through living room toward family room, is good for entertaining. Folding doors separate study area when it is used as bedroom.

Nearly all buyers want the family room and air conditioning

A family room is easy to add to the basic house, makes the Summit and other expanded versions even more open in planning. And, Hughes finds, openness inside the house is what most of his buyers want today.

With 21 big and little models to choose from, buyers can take almost any size house with or without air conditioning or family room. About 90% want the family room, 80% the air conditioning.

"Some buyers cannot afford models with both," says Hughes. "The family room adds \$1,000 to their cost, air conditioning \$800. When they can afford only one, most elect to take the added space (especially when they buy during the winter). However, 80% of our buyers take air conditioning, even though it is harder for them to qualify for loans because FHA requires \$100 more income per month."



Built-in room divider separates family room from living area and holds TV set which can be viewed from both these rooms and from the kitchen as well.



Sliding glass doors open from dining room onto terrace created by louvers (see opposite page) make outdoor dining easy to manage. They are included in all models.

This is Hughes' ingenious solution to . . .



. . . the riddle of FHA's varying storage rules



Outside entrance to storage wing opens to area that varies in size according to local FHA requirements.



Adjacent closets in family room utilize balance of storage wing not required for outside storage space.

As almost any builder knows, local FHA offices sometimes contradict each other with conflicting rules.

Because Hughes builds in several different cities, he often finds it difficult to satisfy all requirements without modification of floor plans or changes in specifications.

For instance, nationally, FHA requires 300 cu. ft. of storage area, leaves up to the district offices how much must be outside and how much inside. In Bartlesville, Okla., FHA requires at least 250 cu. ft. that can be entered from the outside; in Wichita Falls, 150 cu. ft. must be outside storage and 150 inside; in Pampa and Borger, at least 250 cu. ft. must be inside storage space.

For a mobile builder who wants to build the same house in all three districts, this presents a problem. Hughes solved it this way:

In most models, he adds a small storage wing under the wide overhang at rear of house. It has about 300 cu. ft. of storage. All he has to do to meet the local ruling is adjust the partition inside the wing to suit the minima, fit the outside and inside doors accordingly.

"But VA is a bigger problem than FHA," Hughes says. "We want to get VA to recognize our costs for the wider overhangs and louvers. VA gives us no more for these houses than for houses without all the things we put in to make them better air-conditioned houses. We could build the same floor area for \$1,500 less than this house costs."



Ulric Meisel-Dallas

Hughes says:

“Panelized houses
are more economical”

Hughes is convinced that the panel method of building exterior walls saves labor and materials. Hughes is also sold on panels because: “With the 4' module method of increasing the size and number of bedrooms in our new model, we can meet almost any need of larger families in the medium-income bracket.”

All panels in all houses are 4' wide, with one exception: two 6' panels are used along kitchen-bathroom wall to accommodate 6½' wall-hung refrigerator.

Hughes is still experimenting with panels. In Bartlesville he uses US Steel Homes panels (a stress-skin insulated panel with a 2 x 3 framework with plywood glued and nailed). Hughes is testing the cost of these panels against the cost of his own, which have a 2 x 4 framework.

Other features Hughes offers in his models include:

Adequate wiring: 3-wire 100 amp. entry boxes, 220-v. service.

Insulation: 2" thick in walls and 4" in ceiling. This is better-than-average for northwest Texas.

Built-ins: Fold-down table in kitchens (cost to builder: \$73.64), divider cabinet that serves as bookcase on one side, china cabinet on the other and TV set table on top (\$43.30), double lavatory vanity in one bathroom (\$56.80), single vanity in other (\$23.60)./END

Preassembled panels are delivered to building site as soon as foundations are set, so no time is lost in erection.



Five panels shown above were erected in a matter of minutes. All exterior panels are raised in one morning; roof is completed in one afternoon, so house is enclosed in one day.





Photos: Walter Daren

ROUND TABLE recommends a module for bedrooms, living areas, built-ins

On the next seven pages is the report of a Round Table on standard dimensions for bedrooms, living areas, and built-ins. The conference was jointly sponsored by HOUSE & HOME, the American Standards Association, and the Research Institute of the National Association of Home Builders.

Four previous Round Tables under the same sponsorship had recommended for all builders' houses:

1. A standard 8' height for flat ceilings (H&H, April '55).
2. Three standard window heights—3', 4', and 6'—six standard window widths—24", 32", 48", 64", 80", and 96"; two standard door heights—6'8" and 7'—and three standard door widths—24", 32", and 36", with all doors framed ceiling high (H&H, June '55).
3. A standard 32" bathroom module with a 16" half module, to permit floor-to-ceiling wall panels, wall-to-wall ceiling panels, and standard plumbing templates (H&H, Aug. '55).
4. A standard 2' module for built-in kitchen planning (H&H, Sept. '55).

Now this fifth Round Table has agreed on a 4' module with even foot fractional modules for bedrooms, living areas, and built-ins, and a standard 3'4" width for bedroom halls.

The panel

TECHNICAL ADVISERS

WILLIAM C. SCHEICK, *executive director*
Building Research Advisory Board
JAMES T. LENDRUM, *AIA Director*
Small Homes Council, University of Illinois
LEONARD HAEGER, *technical director*
Levitt & Sons, Inc.

for the American Standards Association

S. C. FROST, *civil engineer*

for the customers

AMERICAN INSTITUTE OF ARCHITECTS

JOHN HIGHLAND, *past chairman*
Home Building Industry Committee
WILLIAM DEMAREST, JR., *secretary*
Modular Coordination Committee
NED A. COLE
CARL KOCH, *AIA*

NATIONAL ASSOCIATION OF HOME BUILDERS

DAVID SLIPHER, *chairman*
Research Institute
RALPH JOHNSON, *technical director*
MARTIN L. BARTLING, JR., *national secretary*
WILLIAM WEIST, *chief engineer*
Place & Co.

NATIONAL RETAIL LUMBER DEALERS ASSOCIATION

FRED DILL, *assistant trustee*
Lumber Dealers' Research Council
RAYMON H. HARRELL, *research director*
Lumber Dealers' Research Council

Our basic recommendation for bedroom and living room dimensions:

Standardize and coordinate on a 4' module and its even-foot fractions

Round table report:

PREFABRICATED HOME MANUFACTURERS INSTITUTE

PETER S. KNOX, *president*
PHMI
President, P. S. Knox Corp.
RICHARD POLLMAN
Head of Design Committee
WILLARD WORTH, *director engineering and research*
National Homes Corp.

for the manufacturers

EARL BOUGHTEN, *manager sales*
United Steel Fabricators, Inc.
R. E. BRANNAN, *market development mgr.*
Bakelite Co.
EDMUND CLAXTON, *director of research*
Armstrong Cork Co.
JAMES DUNN, *vice president*
U. S. Plywood Corp.
R. E. FELLOWS, *vice president*
Heatilatory, Inc.
T. Z. HERR, *chief engineer*
The American Welding & Manufacturing Co.
JOHN P. JANSSON, AIA, *field manager*
Aluminum Window Manufacturers Association
PAUL M. JONES, *president*
Carpet Institute Inc.
JOHN LEARY, *assistant industry manager*
architectural products
Aluminum Company of America
JOHN T. LORICE, *director advertising & sales promotion*
Congoleum Nairn Inc.
BURT MC KEEHEN, *eastern sales manager*
Mengel Co.
R. H. MC CONVILLE, *merchandising manager*
New Castle Products, Inc.
R. GEORGE MORGAN, *director sales*
Upson Co.
AL PARKE, *product design director*
L. A. Darling Co.
MONROE POLLOCK, *vice president*
U. S. Plywood Corp.
DON A. PROUDFOOT, *sales manager*
Simpson Logging Co.
WILLIAM REYNOLDS, *economist*
Carpet Institute, Inc.
DR. DAVID A. ROTHROCK, *head plastics department*
Rohm & Haas Co.
DONALD C. SCHULIZ, *general manager*
Fabrow Mfg., Inc.
PAUL SHOEMAKER, *vice president*
Masonite Co.
R. D. SPENCER, *manager Twindow sales*
Pittsburgh Plate Glass Co.
F. VAUX WILSON JR., *vice president charge of sale*
Homasote Co.

GOVERNMENT OBSERVERS

STANLEY YOUNG
Architectural Standards Division
Federal Housing Administration
CHARLES HOPKINS, *director*
Construction and Valuation Service
Veterans Administration

MODERATOR

P. I. PRENTICE, *editor & publisher*
HOUSE & HOME

Most rooms in most builders' houses are the wrong size.

They are the wrong size if the builder wants to build economically without wasting costly material and high priced labor to cut, fit, and piece everything together at the site.

They are the wrong size for two reasons:

1. Few builders have ever given much thought to what room dimensions will cost least.

2. Even those few usually stop their thinking with the joist length. They size their rooms to make full use of the 2"x10"'s in the ceiling. That makes it almost sure they will waste money on almost everything else that goes into the room, for the lumber mills still dimension our lumber to lengths that will not work economically with any other components.

Two earlier Round Tables have recommended that bathroom dimensions should be standardized on a 32" module and kitchen dimensions on a 24" module.

Now we have satisfied ourselves that for sleeping and living rooms a 4' module requires the least change in standard dimensions of any home building component except framing lumber (*see p. 165*).

We have satisfied ourselves that it will work well with any of the four overall widths on which the builder's house seems to be standardizing rapidly (24', 26', 28', and 32' inside measurement) (*see p. 166*).

We have also satisfied ourselves that it will work not only with today's house but also with many of the new requirements of tomorrow's house, such as more provision for storage (*see p. 168*), much more use of built-ins (*see p. 169*), and much more acoustical treatment (*see p. 169*).

But changing room sizes to the 4' module* is not the only change we must make to realize the economy of using parts instead of pieces and the space-economy of using built-ins.

We must also change our age-old attitude toward dimensional sloppiness (*see p. 164*)

We must learn to concentrate our slippage in one place, and the logical place to concentrate it is the bedroom hall.

Foot for foot this hallway is the most expensive space in the house to build because of its many doors.

It is high time to develop bedroom hall packages which would incorporate most of the doors into prefabricated door-and-wall combinations (*see p. 167*).

*We recognize 4" as the necessary starting point for all modular coordination, but it should be easy to see that a larger module is needed for larger components. For example: 11'8" is on the 4" module, but it is more wasteful of 12' carpeting, 6' linoleum, or 4" dry wall than 11'9".



Leary: We know how important standardization is.



Shoemaker: Builders and architects could design to 16' panels.



Cole: We make 53 components. Only five are other than 4'.



Frost: The American Standards Association offers its facilities.

We need new and changed thinking to get economy of using parts instead of pieces

We must learn to think in terms of a components industry to make the parts and an assembly line industry to put those parts together. That means:

Manufacturers must stop thinking of themselves as suppliers of materials to be cut to size at the site

They must learn to think of themselves as makers of components intelligently predimensioned to look right together and go together with a minimum of cutting and piecing on the builder's assembly line.

The prefabricators, who have the most experience with coordinated components, could tap a second and perhaps bigger market if they would sell some of the components they make separately. The customers among us are unanimous in wishing more prefabricators would decide to do so.

Builders assembling predimensioned components must learn to work to much closer tolerances

We realize that home building can never be a precision industry like watches or cars; we realize that many of our materials shrink and swell.

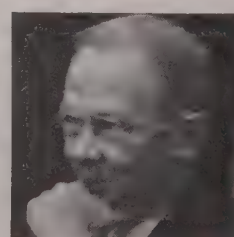
But the less parts we have to assemble the less inaccuracy we need allow for. The more accurately we build, the better use we can make of predimensioned parts. If the prefabricators can work to $\frac{1}{4}$ " tolerance in 40', conventional builders cannot afford to go on accepting the 1" in 25' error we have so long taken for granted.



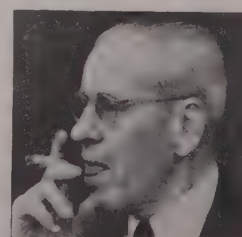
Smith: Let's see if we can't exhibit collectively the intelligence we have individually.



Slipper: The question is, which came first—the hen or the egg?



Claxton: Manufacturers here can meet any of these proposed modules.



Morgan: Standardization permits larger runs and smaller inventories.

Lumber is the only important material that must be redimensioned to fit our room modules

To that end we urge an early meeting with the lumber producers at which architects, lumber dealers, and home builders can explain why today's dimensions no longer fit today's needs.

Five years have passed since HOUSE & HOME's first Round Table on Waste in Building first called attention to the waste enforced upon our industry by wrong lumber sizes. Five years have passed since AIA and NAHB, through their collaborative committees, first called upon the lumber industry to help us end this waste.

In these six years more and more houses have standardized on dimensions for which present standard lumber lengths are wrong and wasteful.

What we need from the lumber industry is:

1. A stud length that will work without waste with the 8' flat ceiling height which is rapidly becoming standard for all builders' houses from coast to coast. This stud length should be not more than 7'8". It will be 7'4" when, as and if the double 2" x 6" header is generally adopted, as we believe it should be. (The double 2" x 6" header permits uniform framing over most

openings, whereas the double 2' x 4' header must be reinforced at every window and door.)

2. A joist length standard 8" longer than the room size module; i.e., a 12' room such as we recommend calls for a 12'8" joist. Today the average builder gets his 12'8" joist for a 12' room by cutting 16" off a 14' length.

3. Perhaps a new stud 3 1/4" deep instead of 3 3/8" deep to put partition thickness (with 3/8" wall board on either side) on the 4" module.

Two big developments are lessening our industry's dependence on lumber as a basic structural material:

1. The trend to open planning and bigger glass areas, both of which tend to concentrate loads and so lessen the economy of stud framing (i.e., the economy of framing with many small pieces instead of fewer larger pieces).
2. Dimensional standardization, which makes it much less important to use a framing material that can be cut to fit at the site.

The metal manufacturers among us are all well aware that concentrated

loads and coordinated dimensional standardization offer them a far better chance to increase their sales in the home building market. The lumber mills can no longer afford to weaken their competitive position by forcing upon our industry dimensional standards that add millions of needless dollars to our lumber freight bill and give us the choice of wasting millions of dollars worth of lumber or millions of dollars worth of other materials.

Hard surface flooring is made on machines 6' wide, so we can see no manufacturing reason for the present 9" x 9" size of most floor tile or the present 18" repeat found in so much of today's designs. No machinery change would be required by the even foot module we recommend, which would call for design on a 12" or 24" repeat and tile cut 12" x 12".

These bigger tiles would involve bigger waste if they had to be re-cut to fit an odd-sized room, but this will no longer be a problem if room and tile are both dimensioned to the even foot; and the bigger tile should be easier and therefore cheaper to lay. Above 12" x 12" we would run into a breakage problem on asphalt tile.

Module will work with acoustical ceilings

Acoustical ceilings should be dimensioned to work with the module that we recommend.

The manufacturers are working to develop squares larger than 24" x 24" that would be dimensionally stable,

but we question our need of bigger pieces, for the bigger the piece the more difficult the visual problem of the joint.

With 8' ceilings it is imperative to use a random pattern.

Appliances, radio, television, and children are making today's house so noisy that most rooms need better acoustical treatment both to reduce sound transmission and improve sound absorption.



Dill: Somebody will discover some paper or some inexpensive cover to protect floors.



Herr: A chance to get together and start something that is very much overdue.



Harrell: We have had exceptionally good luck with the open room technique.



Proudfoot: What can be done to convince FHA that sound-conditioning adds value?

Bedroom hall can be the modular cushion

Some rooms have to fall off the 4' module and even off the 1' fractional module, because we must always allow for partitions and we need more partitions in some parts of the house than we need in others.

That makes it fortunate that the bedroom hall can best be an intermediate width:

A hall 3' wide is a little too narrow; 4' is wider than we need; but 3'4" is a good bedroom hall width.

A hall 3'4" wide will just about incorporate the partition on either side within a 4' module.

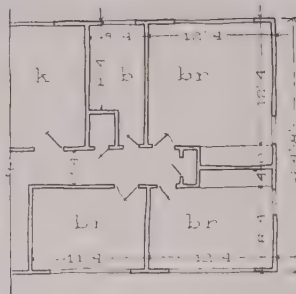
So in a 24' house you get one room 12' deep and one room 8' deep on either side of a 3'4" hall. In a 28' house you get two rooms 12' deep on either side or on one side you can have an inside and an outside bath 5' wide with an 8" wet wall between and a 16" linen closet off the hall. In a 32' home you could add a 2' closet depth on either side, (two 2' closets give a lot more usable storage than one 4' closet).

Beyond the ends of the bedroom hall the room on one side of the house or the other will probably have an across-the-house dimension off the even-foot module. If conventional closets are used this can be avoided only by making the closet deeper than usual (i.e., 3' including the partitions). If storage walls are used it can be avoided only by making the storage wall shallower than usual (i.e., 2' at the floor line, with toe space under the greater depth needed above).

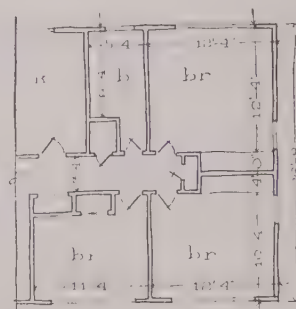
Hold to module

Much of the saving of modular planning can be retained if one room dimension is kept on the module, preferably the full 4' module. For example, a room 12' x 10'4" can use the full manufacturing width of either carpet or hard surface floor covering, just cutting off a shorter length.

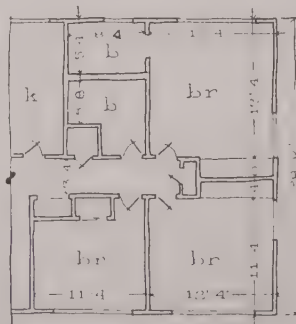
It was easy to agree on 4' as the basic room module. It was not so easy to agree that the fractional increment should be in even feet instead of conforming to the 16" increment of most stud spacing—an increment accepted



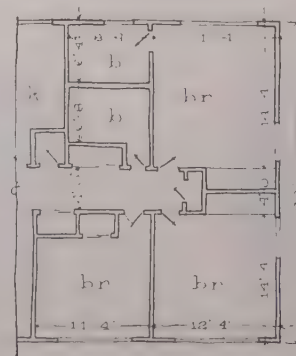
24' house has a 12' and an 8' bedroom on each side a 3'4" hall



26' house may have 12' and 10' wide bedrooms and deeper bathroom



28' house has two 12' rooms or 13' and 11' rooms, second bath



32' house has 14' bedrooms, larger baths, wider hall and closets

by two earlier Round Tables as the modular basis for standardizing window widths and bathroom dimensions.

Our reasons for deciding to recommend even-foot fractions were:

1. The even-foot fractions work best with the more expensive materials used in a room. It costs a lot less to waste a stud than to waste a 4" strip of carpet.
2. The framing of outside wall is almost completely independent of the room sizes. It is affected only where an interior partition abuts, which is only at six points in the average builder's house. By placing the extra stud required as a nailer at these six points either 4" to the right or 4" to the left, the even-foot fractional module can usually be made to work just as economically with the exterior wall framing as a 16" fractional module would work (i.e., it would require an extra stud at 10' and 14', but not at 7', 8', 9', 11', 12', 13', 15', 16', or 17' room width).

3. Stud spacing on interior partitions is apt to be thrown off the 16" rhythm by nonconforming door openings. And interior stud spacing will grow less important as more storage units are used to do double duty as partitions and as the increasing efficiency and economy of roof trusses makes load bearing partitions obsolete.

The easy way to lower our sq. ft. costs is to make our rooms bigger, for a bigger room needs no more corners and openings than a small one, and those are the expensive items.

The cheapest way to make your rooms bigger is to enlarge them to the module, for that saves you the material that gets cut away and wasted for an off-module dimension and it saves you the labor cost of that needless cutting and fitting.

A room 8 x 12 is 10% bigger than a room 7'8" x 11'8", but it should cost less because it wastes less. FHA is raising its minimum room sizes, so this is a good time to think about how to make them bigger for less.

Why is the bedroom hall so expensive?

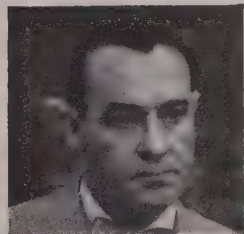


New York Times

Jansson: Taking a door panel and making the top a transom has been used in schools.



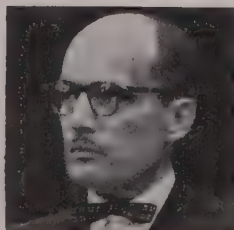
Lorick: A 12" x 12" asphalt tile would not be a major problem.



Knox: Compensation for error depends on the number of units that must be assembled.



Pollock: You're wrong if you think you will get 50" plywood at a 48" price.



Lendrum: Joints close enough so you can see two at a time are all right.



Koch: Prefabrication is an advantage, not something to conceal.



Young: FHA bedroom size minima are being raised.

The bedroom hall is much more expensive to build than most people realize, for it averages five to seven doors of varying widths, from 24" to 32" wide. None of these doors fits any other module. All these doors now require special framing.

It is high time to do something about this cost. To that end we suggest:

1. Door assemblies should be built 8'—ceiling high, instead of stopping at 6'8" or 7" and leaving the space above to be filled in by the on-site carpenter. With flush doors one good way to do this is to buy an 8' door which could either 1) open ceiling high for better circulation or 2) be cut off at the top to make a stationary transom.

Where the hall ceiling is dropped for air conditioning such a transom could include a grille.

2. The walls of the bedroom hall should be framed with a double 2' x 6' header, so no special framing will be

needed over any opening.

3. Some smart door manufacturer could get a lot more sales by incorporating two, three or four doors in a single floor-to-ceiling assembly.

Study will show that three or four such combinations designed for a for a 3'4" hall and double 2'x6' framing under an 8' ceiling would meet all the needs of most builders' houses, most of which concentrate several 30" bedroom doors, a 24" bathroom door, and a 24" linen closet door right together at the far end of the hall. (See plans alongside for possible combination.) Some of the doors incorporated in these combination units could be sliding or folding doors, which offer the very real advantage of needing no floor space to open in.

Two door widths are ample for all our needs—a 24" door for bathrooms and other tight spaces, a 32" door for all other uses.

What do you do with the joints?

Building with parts instead of pieces is bound to make more serious the problem of what to do about the joints. Here are four suggestions from the architects among us:

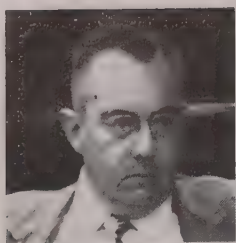
1. Contemporary design shows a strong trend towards making panelization a design plus (instead of something to hide).

2. Joints are not disturbing if they are close enough together so that the eye sees two or more at the same time. For

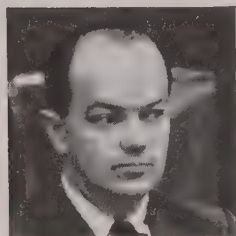
example, plywoods grooved to simulate joints every 8" or 12" are very popular.

3. The joint problem is most serious in the ceiling, where the light and the large plane surfaces commonly used will show up even the best taped joint.

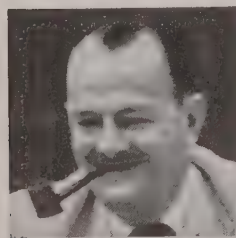
4. The joint problem is magnified by smooth surfaces, minimized by speckled finishes, travertine patterns, random patterns, or striations, all of which divert the eye.



Johnson: People have been sold so many goods that they can't afford to buy the space to store them!



Demarest: One problem is making up inaccuracies in construction, another is making up leftovers in planning.



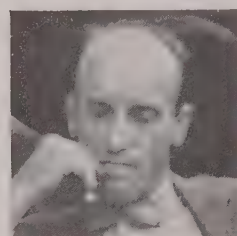
Highland: Your deeper house is predicated on using the interior laundry, second bath, storage, McGee closet.



Pollman: The FHA 30" linen closet is a mean one to work with.



Parke: In a 10' bedroom there should be 10' of closet space. There are only two purposes for a house. One, to protect people from the elements and the other, to take care of their belongings.



Weist: You couldn't tell the difference in labor cost between a house 28' x 32' and a house 28' x 36'.



Wilson: On that one modular job the contractor made 28% net profit.

More storage space is the No. 1 need of today's small house

A home is not just a place to shelter people. It is also a place where people can keep and enjoy their belongings.

Americans are becoming a nation of captive consumers, taught by advertisers to use their rising incomes to buy more and more things they have no place to put.

Yesterday's house offered ample if inconvenient storage in cellar and attic. Tomorrow's house must provide ground floor storage for far more purchases than people could ever before afford. FHA storage minima are now obsolete, and there is real danger that houses built to those minima will become obsolete too.

Only part of the need for more storage can be met by more use of built-ins with their fuller use of space. Most of the need must be met by leaving aside more room for storage

That is one big reason for building houses 32' deep instead of 28', for this is the cheapest way to make a house bigger, and every foot of the added interior space is needed for storage.

If people keep on buying at the present rate we shall soon need to set aside 9% of our floor area for planned interior storage, with another 9% outside. People buy so many changes of clothes that 10 lin.ft. of closet is none too much for a bedroom. Children get so many toys and games that nursery shelf space, preferably shallow and running to the floor, would have quick sales appeal. And every house needs one big McGee closet to store all the new odds and ends that have no other place.

The dimensions we recommend offer a module to which more built-ins can be planned

Almost everybody has learned to want built-ins in the kitchen. These could be an equally popular selling tool for other rooms as well, *for they offer many advantages:*

1. Built-ins can be planned to make full use of every inch from wall to wall and floor to ceiling. Free-standing furniture wastes space below, above, and on either side.

2. Built-ins make housework easier. There is no need to sweep and dust underneath or between them.

3. Built-ins waste no wall and flooring materials behind and below. A built-in bedroom needs only about half as much finished flooring and floor covering as the same room with movable furniture.

4. Built-ins can be covered by a package mortgage at low interest and 25 years to pay, whereas free-standing furniture must be sold on short term credit at 9.6% interest. FHA, VA, and all mortgage lenders should recognize in their minimum income requirements that young couples whose furniture is sold as part of the house can afford a much bigger loan than they could afford if they had to pay as much each month on their furniture installment as they pay on the mortgage.

5. Built-ins make it easy to plan much better storage. For example, space now wasted under beds can be used for drawers big enough to hold all the winter blankets or all the summer clothes. Storage walls can be planned with (a) drawers at eye level, (b) hanging space below, only 36" high for coats and jackets, only 48" high for trousers or skirts, (c) dead storage all the way to the ceiling.

The average family moves every five years, often to distant states. The less furniture it has to move the better.

Many of us believe storage walls need more than 24" inside depth. Store display cabinets are 28" deep to avoid wear on sleeves, and some of us would recommend 28" for home use too. This will usually allow some hook space in the rear for miscellaneous items that do not go on hangers.

Where the storage wall does double duty as the partition along the bedroom hall (and this is the best place for storage, since it uses no perimeter), its modular depth would be 28" (i.e., 24" plus 4" for the partition replaced).

But the depth of the storage wall usually affects the module only at the floor, so we recommend that at the floor storage walls should be alternatively 24" or 28" deep, with toe space under any greater depth above.

We believe the time will come when built-in bureaus, dressing tables and perhaps beds will be as much a matter of course as built-in bookcases

Not so long ago people used to move their clothes closets (then called wardrobes) from house to house with them, and that quaint custom still prevails in Europe.

Built-ins will catch on first with young couples who have not yet bought a lot of free-standing furniture. With second time buyers they will catch on first in the family room whose furniture is not yet conventionalized.

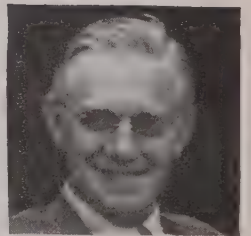
We hope the furniture manufacturers will decide that built-ins are not a threat to their future, but a fine new opportunity to sell furniture by the houseful on 25-year credit; i.e., to sell better furniture than people can afford on short-term credit.



Brannan: Built-in drawers save a lot of floor space.



Bartling: In a 1,200 sq. ft. house, all but four of five components would be 48".



Sheick: These Round Tables are doing a remarkable thing for home building.



McConville: If it is cheaper why don't more builders cut closets ceiling high?



Center chimney is characteristic touch of this Cape Code designed by Architect Royal Barry Wills, famed for authentic colonial designs

HOW A 12-HOUSE BUILDER USES AN ARCHITECT

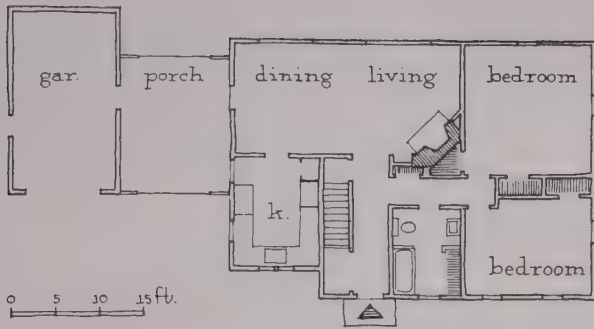
"It pays to have a top-flight architect design your houses even if you build only a dozen a year and all are so-called 'safe' colonial designs."

That is the experience of Builder Alan Balfour of Portland, Me. He finds that "Colonials need an expert's touch, as much as other houses do—and that touch will result in better FHA appraisals and faster sales."

Balfour's houses are designed by Royal Barry Wills, and associates Merton S. Barrow and Robert E. Minot. For an hourly fee, Wills first makes a rough front elevation and floor plan from the buyer's sketch, later sends finished plan and elevations to the builder.

"Any small builder can find an architect who will work with him on a reasonable cost basis," Balfour insists. "The builder who says he can't do this probably has not had the courage to talk to local architects and work out something that is practical."

Builder Balfour last year built 12 houses in his wooded subdivision in Cape Elizabeth, Me., just outside Portland. They sold for \$18,000 to \$25,000 on half-acre lots. Balfour, who has other business interests, expects to break through the 12-house-a-year barrier soon when he adds a top assistant. Currently, three out of four of his new houses are two-story.



One-story houses built last year include a Cape Cod (opposite page and floor plan above) and one with lower roof pitch (right above). Each reflects Architect Wills' close adherence to basic principles of colonial style.

Two-story house (right center) has its front entrance midway between the two levels, the first of which nestles 4' in the ground.

Salt box house (below left) is strictly traditional with its natural wood siding.

Hillside house (below right) has main living area on the top floor and a patio, not shown, off living room.





This large sewage plant serving 10,000 people in New Holstein, Wis. was built for \$126,000, or \$50 a family. It works on same principle as used in small plant diagrammed on opposite page.

WHY NOT USE SEWAGE TREATMENT PLANTS?

New evidence shows they are feasible even for smaller builders

Before you pass up buying that land where septic tanks won't work and sewer lines are not available, before you go ahead with plans to put septic tanks on land you own or plan to buy, think hard about these facts:

- Sewage treatment plants are sometimes cheaper than septic tanks, even for fewer than 50 houses.
- Hundreds of developers who have built sewage treatment plants in recent years have found many new ways of getting their money back. Sometimes they recover their investment as soon as the plants are built.
- FHA last December made it easier for builders to get their sewage systems approved and get their money back once the plants are built.
- FHA will soon come out with much more stringent requirements for septic tanks, and state and local governments are making it tougher and tougher to put in septic tanks in almost every part of the country.
- New sewage treatment systems have been developed that greatly cut costs, meet a wider variety of needs.

In nearly every large market in the US, the movement to the suburbs has by-passed acreage suitable for home building in all respects save that of sewage disposal. Sometimes the ground has not been suitable for septic tanks; sometimes existing city sewers have been too far away, too overloaded or unavailable for various other reasons. In many such cases, these tracts can be purchased and a community treatment plant built to serve a few dozen or a few hundred houses at an entirely feasible cost.

Complete sewage treatment plants and collection lines can often be built for as little as \$250 a house although they may in some cases run as high as \$900. The cost depends largely on the kind of plant designed, the number of houses connected, the terrain and widths of lots, and the degree of purification required.

What the approximate cost will be for a given situation is not so hard to find out as builders and land developers might suppose. True, there is no price list or set formula a builder can look at to find the costs of the plant, the central mains, the manholes and the

laterals to each house. But any builder smart enough to solve his other complex home building problems can determine the costs of a sewage system relatively quickly—and right within his own locality. To figure your costs—and the chances of putting in a sewage plant—here are some initial steps to take:

1. Get advice from the state board of health

Nearly all state boards of health are staffed with competent personnel who can explain requirements for sewerage systems. They can tell you which engineers have had the most experience designing the systems.

2. Consult a sanitary engineer

Always do this. For a small fee of perhaps \$200 a local sanitary engineer will find out the size of plant you need and get your tentative plans approved by the state board of health. Even if you expect to buy a "packaged" plant from one manufacturer, your state board of health will require approval of the design by an engineer licensed in your state.

3. Get advice from the FHA

FHA now has 19 sanitary engineers in the field, "enough to pretty well serve subdividers adequately." Make sure you understand FHA's policy on safeguards assuring continuity of operations, and whether or not the agency will reflect some of your sewerage costs in commitments on your houses. James R. Simpson, FHA's chief of sanitation, points out that "the only formula FHA can have in this matter, as in others affecting appraisals, is how much more the local market will pay for sewerage. In some areas where there has been little publicity of septic tank troubles, sewerage may be worth no more; in others it will be worth several hundred dollars more."

FHA will not approve a second-rate sewage system to avoid septic tanks. Nor will it approve any sewage

plant unless assured that the plant will be operated by a proper trustee if anything goes wrong. Yet the agency recently took steps (in Letter 1574, issued Dec. 14, 1955) to permit builders to get back their investment in sewage treatment plants through trust arrangements. Under these, which may now be approved locally, the builder may collect his money for the plant through periodic charges to homeowners.

4. Buy all your machinery from one manufacturer

Most sewage treatment plants can be built with equipment provided by a single manufacturer. This is preferable because it gives you one source of responsibility in case the system breaks down. (Some sanitary engineers tend to specify equipment from several companies in order to avoid the charge of playing favorites.)

5. Make sure you have a stream nearby in which to discharge effluent from the sewage plant

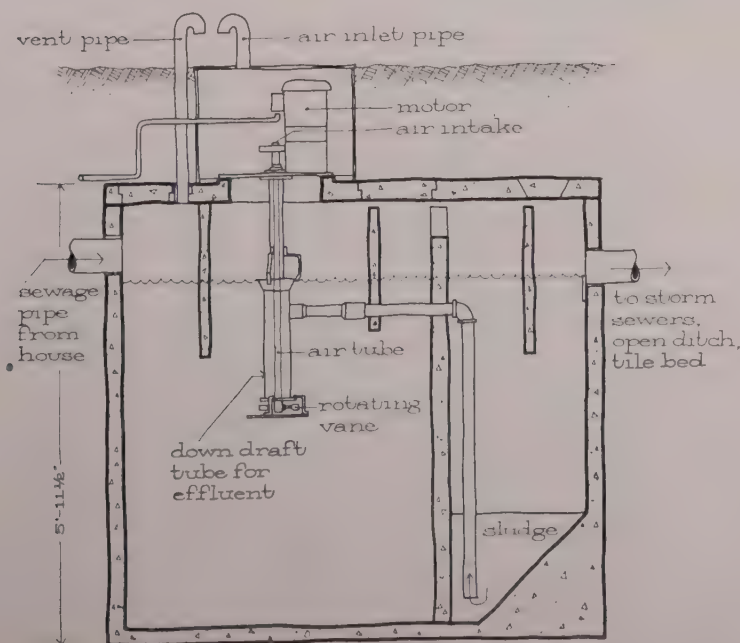
Even a dry stream bed will suffice in most states, but this may not be available. Your state board of health comes into the picture whenever the effluent flows into the general water shed. It is not often possible to pond the effluent on acreage you own. Nor is this advisable: not only does it take up costly land but you will find it hard to convince the public that the treated effluent is almost as pure as any other water.

6. Be prepared for a long wait

A large sewage plant can be built in three or four months, but often it takes six months or a year to obtain local, state and federal FHA and VA approval.

As a rule of thumb, the treatment plant alone will cost a little less than half the total cost of the complete sewage system. Mains, manholes, laterals and engineering fees probably will cost more than the plant. These latter costs may be written off as part of other land development expenses if, as is usually the case, they are reflected in higher land values and higher house appraisals.

continued on next page



Here's a one-house sewage plant

Complete sewage treatment is provided in this new design for a single house. It is based on the same principal used in the large New Holstein, Wis. plant shown on the opposite page. Widely tested in recent months, this plant is expected to be in heavy demand first as a replacement for septic tanks that have failed. It will be put on the market this spring. No larger than a septic tank, it is expected to range in price from about \$400 to \$1,000, depending on the plan required. Soil that will not absorb a septic tank's odorous effluent will not absorb the effluent from this device, either, but the effluent from the latter will be pure and no more of a nuisance than rain water. It should also prove useful to home builders who build on single lots.

Costs vary from \$50 to \$500 per house

The plant cost may range from less than \$125 a house to \$500 or more per house. Generally, the more houses served, the lower the cost. The builder is wise who does not try to cut costs by underestimating the total number of houses his plant will serve. (He may be able to cut his own costs if other builders on adjacent tracts can be hooked onto the system.) But plants differ greatly in costs by the nature of the process and construction costs can also vary widely. One builder may pay twice as much as another for the same size plant providing the same treatment.

Costs are relative, of course. If septic tanks work in a given tract and cost only \$300, a sewage plant system that costs twice as much per house will be worth the extra amount only if it increases the value of the houses that much. (It often does.)

Builders justifiably complain that sewage plants require a large outlay of capital before they can sell their

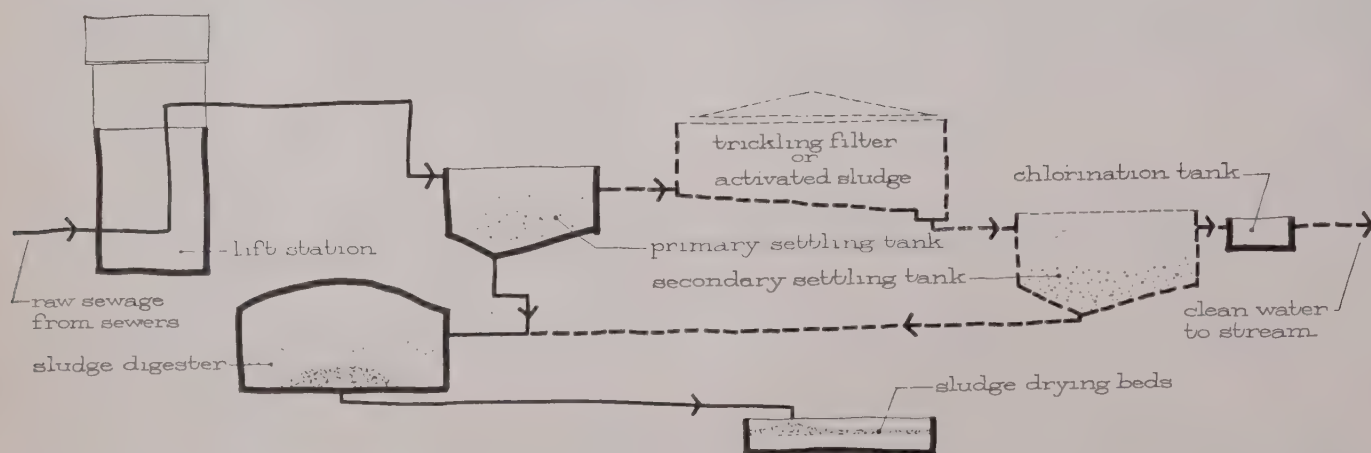
first houses. Banks are reluctant to lend money on utility plants at ordinary interest rates. Not even prime mortgagees seem willing to lend money on sewage (or water) plants before any houses have been built and sold.

Some builders have found the money

Nevertheless, some smart builders have found ways to raise the necessary capital more or less painlessly. A few have incorporated their own towns, which in turn have issued revenue bonds (permitted in some states) in order to pay back the builder in a short time. Others have presold and completed enough new houses to finance the plant out of profits on these first homes. In some states, builders have found the sewage system one of their most profitable investments: if the state does not control utility rates (and many do not), the builder may recoup more than his expenses over a period of years.

(For other data on sewerage, see H&H June '55.)

Flow diagram of typical sewage treatment plant



Most sewage treatment plants combine the various steps shown in this diagram, regardless of the size of the community served. Sometimes a new plant will include fewer components than shown, the others to be added as the population grows.

A lift station is not needed if the plant is lower than the collection lines. The primary settling tank removes up to one-third of the sewage parts, which by itself is adequate to meet health board requirements in some cases (as when the effluent flows into a large river).

Secondary treatment usually consists of a trickling filter or activated sludge (air diffusion) unit. In either case, sewage content is reduced by bacteria which consume the solids. These bacteria require oxygen to

live. In a trickling filter tank they cling to a bed of rocks, broken bricks or wood blocks through which sewage trickles. In an activated sludge plant oxygen is usually forced into the effluent in large amounts. The final settling tanks filter out these aerobic bacteria.

In the sludge digester tank heavy solids are consumed by aerobic bacteria and the small amount finally remaining discharges into a drying bed.

Ordinary household sewage is rated at about "200 ppm BOD"—that is, 200 parts per million of bacterial oxygen demand. Secondary treatment plants can reduce effluent "strength" from 200 ppm to about 10 ppm or by 95% to 96%. Such effluent is about as pure as the streams it flows into.

Florida's 300 sewer treatment plants, including those shown here, have proved profitable land savers for 70 builders.

The No. 1 problem: financing

Most of those close to problems of sewage plant financing agree that FHA and VA should have the power to insure mortgages on sewage treatment plants.

This was recently recommended by John W. Wakefield, chief of the sewage section of Florida's State Board of Health. Florida has had more experience with privately sponsored sewage plant systems than any other state. Wakefield has records of more than 300 in the state, one fourth of which are privately operated, for the most part by home builders.

Speaking to the NAHB in Chicago last January, Wakefield said:

"The weakest link leading to a successful community sewerage system is the method of financing. Bond houses or mortgage agencies are understandably reluctant to invest in a long term program, for which repayment will depend on the collection of sewer service charges, when there is no assurance of the number of houses to be built and sold. On the other hand, even with stage-by-stage construction, the initial stage of the sewerage system must be complete within itself and the investment is relatively large.

Badly needed: a loan guarantee program

"It would appear that what is needed is a loan guaranteeing program similar to that now available for housing. If the Congress would pass legislation authorizing FHA and VA to guarantee mortgages for water and sewerage systems to serve the houses on which they guarantee mortgages, the package would be complete. These agencies would then be stimulating better sanitation instead of, in many cases, stimulating the creation of additional sanitary hazards.

"The value of public sewerage to the home owner lies in better sanitation and convenience. The value to lending and mortgage guaranteeing agencies lies in better resale value. The value to the housing developer lies in increased valuations and better sales appeal."

Last year Congress set a precedent for FHA mortgage insurance on water and sewer plants when it gave FHA the right to insure mortgages on trailer camps. In effect, this was insurance on water and sewer systems.

Sooner or later the home building industry must come to grips with this issue. The longer it waits, the longer developers must pass up valuable tracts, take chances on septic tanks, dip into building capital for sewage plants or sweat out other solutions.

Nevertheless, many builders cannot afford to wait for an over-all solution. Many own land today, unfit for septic tanks and beyond existing sewer lines, where sewage treatment plants would work and would be approved if the builders only knew how to finance them. For some ingenious solutions to this problem, turn the page . . .



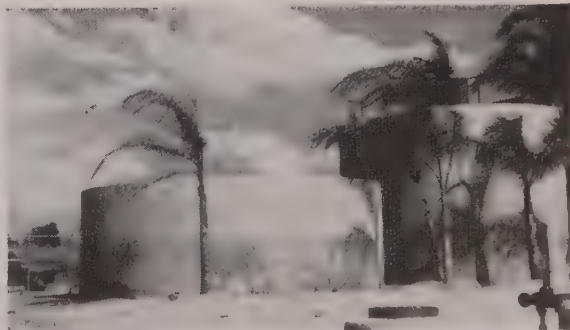
Myrtle Grove plant for 35,000 people cost \$93,350 initially for first 600 houses, \$943,000 completed.



Magnolia Gardens plant for 1,800 people



Cedar Hills plant serves 2,450 people



Garden Manor plant has painted seascape



Portable trickling filter plant serves a temporary school in new Florida town.

These case histories show how you can pay for a sewage plant

The Case of the Delayed Payment

The problem: A. F. Johns bought 160 acres for a tract of contemporary houses near Tampa, Fla. For Florida, most of this was relatively high ground, yet "a low soil percolation test in one low area meant I would have lost up to 150 lots, enough to pay for a sewage plant," Johns explains. The state board of health approved the activated sludge plant he planned, and the builder was all set to build it and recover his costs through monthly collection charges to homeowners. (Like many states, Florida does not regulate sewage rates of private operators of the plants.) But Johns struck a snag when FHA refused to grant commitments on his houses unless he deeded the plant to a trust, he reports. "Under the trust agreement FHA proposed, the plant could have been taken away from me if anyone complained. I don't mind giving a plant away if I can get my money out of it."

The solution: "I simply by-passed FHA. I got VA approval and it raised my appraisals \$200 a house, enough to cover my cost for the collection system. VA even gave me permission to put in temporary septic tanks for 55 houses for the four months while I was building the treatment plant. I built it big enough to handle 900 houses, although I plan to build only 550."

The costs: Johns' plant cost only \$67,000, or about \$120 a house for the 550 he plans. That is less than septic tanks would cost. As for his \$35,000 for mains, manholes and laterals, "I just figure that in the price of the land," Johns cut his plant cost by building it with his own crews, using his own techniques. "Other builders might pay twice as much for a plant like this if they hired a so-called specialist contractor to do it. A builder who knows his business should be able to cut costs on a sewage system as well as on anything else." Although he will not recoup the \$67,000 in plant costs for a number of years, he points out that "once you have a plant and a number of houses paying sewerage charges monthly, you can borrow from a bank on this income. Thus in effect you have little money tied up."

The Case of the Private Loan

Problem: Cooper Village and Whitney Homes are builders of similar size only two miles apart in Woodbury, N.J. Each bought large tracts several years ago at low prices, saw the land value rise when plans were announced for a new bridge across the Delaware River putting the area in close time proximity to Philadelphia. Each company suddenly discovered that state and county authorities had turned thumbs down on septic tanks. Says Justin Utal of Cooper Village, "In June 1954 we thought we were licked." Says Bertram Kapnek of Whitney Homes, "Actually, there wasn't any answer. Clay is almost to the surface in our area of south Jersey and drainage is poor."

Solution and costs: Each builder reached the same solution independently, about the same time. As Utal puts it: "A New Jersey engineer who has designed 20 sewage systems for home builders gave me figures indicating that a plant to serve my first section of 250 homes would cost little more than septic tanks, and this proved true." His plant cost \$60,000, including the engineer's \$4,500 fee. Kapnek's plant by the same engineer (licensee for a "packaged" plant maker) cost \$78,000 for a similar number of homes (he had to have an \$11,000 pumping station because his houses were lower than his plant). Each builder had to borrow privately to meet these plant costs, putting a heavy strain on their resources. They will get the money back through state-regulated rates over 16-year periods.

The Case of the Two Neighbors

Problem: Carl T. Mitnick, NAHB's new treasurer, and two partners bought 150 acres near Haddonfield, N.J. in 1953, paying \$1,200 an acre. The site was bound to become valuable because a new Delaware River bridge was planned putting the site within a few minutes of downtown Philadelphia. But the township would not permit septic tanks for the 300 houses planned. New Jersey has the most stringent sewerage regulations of any state; the state board of health, public service commission and local township all must approve the plant and rates charged.

Solution and costs: A plant was designed for 700 homes because two builders on adjacent tracts wanted to (and had to) hook their 400 houses onto the Mitnick plant. The plant cost \$235,000, or only \$335 a house for the 700 served. Had it been built for only 300 houses, Mitnick would have paid \$500 per house using this type of plant. He and his partners had to dig deep into their own pockets for the plant investment, but Mitnick points out, "It was worth it because this plant kept us in business. The land we paid \$1,200 an acre for in 1953 is now worth \$3,500."

The Case of the Helpful County

The problem: Realtor Charles Estel of Columbus, O. bought 350 choice acres around a country club north of the city in 1953, paying \$500 an acre. He planned to sell large lots to builders who would put up large houses which would have septic tanks. But state and county officials banned septic tanks, which have been failing in nearby developments, even on large lots. And Columbus refused to extend its sewers. "It looked as if we would have to cut up the acreage into hog lots," Estel says.

The solution: Estel camped on the county board's doorstep for months, trying to get favorable action on a sewage treatment plant of one kind or another. The commissioners knew it would be impractical to build a single large plant that would serve all the fringe area around Columbus. Finally Estel persuaded the board to build the small plant he needed, as a test case. This lucky solution meant that the county would issue bonds to pay the entire cost of the plant, limiting Estel's costs to the collection system.

The costs: The county issued bonds to pay for the \$32,000 plant designed by engineers it selected. This plant is large enough to serve 125 houses at the start and can be expanded later at low cost. (It also is based on a new principle to end the chances of any odor in final sludge beds.) The first 77 homeowners in Estel's initial Brookside Estates section will pay the county \$45 a year in taxes for ten years. This will permit the county to recover its \$32,000. Estel's costs for each of his three-quarter-acre lots: \$500 for land, \$250 for collection lines and \$800 for 50'-wide roads—a total of \$1,550 for lots that are now worth about \$3,000 each.

Byron C. Nash Studio



New Whiteland plant serves up to 250 houses in this first stage, will next be expanded to handle 500 houses, finally 1,200 or more. Effluent flows into small stream in foreground. Of the same type as that shown on page 172, such plants reportedly cost as little as \$12,500 for only 100 houses. (Figure does not include collection system costs.)

The Case of the 48 Lots

Problem: Joseph Zilber of Towne Realty planned a small development of prefab houses south of Milwaukee. He had every expectation of using septic tanks for the 48-house tract, but local authorities refused to permit them following numerous failures in the clay soil of this area.

Solution and costs: Investigation proved that a small trickling filter sewage plant system, acceptable to health authorities, would cost only \$800 per house for this small group of houses. That was only \$200 more than septic tanks would have cost in the area if allowed. This was well worth the price, for it made the tract more valuable, and the plant was built. Actually, it might have cost less, as events have since proved. Towne Realty later bought adjacent land for 53 more houses. Since these are on lower ground, an expensive lift station had to be installed to pump the effluent from the newer houses to the treatment plant. Had both tracts been developed at the same time, the cost per house would have been only \$600, the same as septic tanks cost in the area.

The Case of the Brand New Town

The problem: Community Homes bought a large tract of farmland 15½ miles south of Indianapolis in October, 1954. Soil tests ruled out septic tanks, as the builder expected. (Had they been suitable, they would have cost \$600.) The tract was bought at low cost but was bound to prove valuable for home building because it would soon be close to the juncture of a new by-pass around Indianapolis and a throughway into the city. Indianapolis sewers were 11 miles away, thus too costly to reach. The builder expected easily to get county approval for utility plants. This, it turned out, was not in the cards. Nearby residents fought the development (1,200 homes are planned, all National Homes prefabs) because they feared their schools would be overcrowded and their taxes would go up. They prevailed on the county board not to approve utilities for the tract.

The solution: Partners Marley Williams and Robert Clark of Community Homes arranged to have their tract incorporated as a town. Under Indiana law, a town has the right to approve utilities and issue revenue bonds to pay for them. And only three residents are needed to incorporate the town. The only three families with homes on the tract a year ago agreed to do this. This solution not only met the problem of authority to operate utilities but held down the builder's costs. Although the builder had to supply \$80,000 for interim financing of the sewage system, the new town of New Whiteland was soon able to issue revenue bonds (snapped up at once by investors) and pay back this \$80,000.



Coliseum floor serves as nailing platform for 24' gable end wall.



Up she goes! Crew tilts wall into place between waiting side walls.



Window opening was only simulated; high or low windows could be used.



Upside down trusses are hung on framing, then tipped into place.

Agile workman spaces trusses, as others spike truss heels to plate.

Finished shell awaits mechanical systems, installed in afternoon.



NAHB puts up a house in 4½ hours with **6 BEST BUILDING IDEAS**



Master of Ceremonies Andy Place (at mike in big picture) keeps crowd informed on each step.

What building techniques should every builder know, and use?

NAHB's Research Institute, a blue-ribbon group of some of the smartest technical men in the industry, picked six things to dramatize at their January Convention. The six:

Tilt-up construction

Trussed roofs

Large components

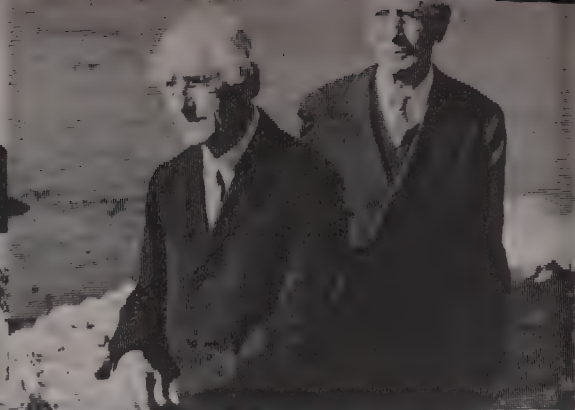
Preassembled plumbing walls

Packaged heating/cooling units

Ample electrical service

Under the direction of ringmaster Andy Place, a framing crew unlimbered their hammers at 9:30 a.m. before several thousand onlookers. Using precut lumber, continuous double 2" x 6" headers, and complete window and door sections, the men built the walls on the floor, sheathed them, then lifted them into place. Preassembled roof trusses were hung upside down, rotated into position, then fastened. (Bolted, split ring connected, and glued-nailed trusses were shown.) By noon, the house shell was complete, and the crowd could hardly believe their watches.

Promptly at 2 p.m., a preassembled plumbing tree, encased in a double wall, was carried in and rough-installed in only ten minutes. Next came a complete heating-cooling system, internally factory wired and plumbed. All ducts were cut on the job from prefabricated glass fiber tubes, with no metal used except for fittings. Simultaneously, electricians were installing the recommended 100 amp. service panel and all outlet boxes and rough wiring. At 4 p.m., Place declared the job done and invited the crowd to inspect the work. Total working time: 4½ hours.



Before *The James Culbertson House of 1897, and its Architects, Greene & Greene. House as built did not follow original plan in every detail*

A FINE OLD HOUSE ...remodeled with respect

Once upon a time—in 1897, to be exact—two remarkable innovators, the architects Charles and Henry Greene, designed and built a house at 235 N. Grand Ave. in Pasadena, Calif.

More than 50 years later, two young California architects named Whitney Smith and Wayne Williams—admirers of the Greenes—were called in to remodel the old house.

This picture story shows how carefully and respectfully Smith & Williams went about their task, how well they preserved the spirit of the original house, how sensitively they treated its many beautiful details.

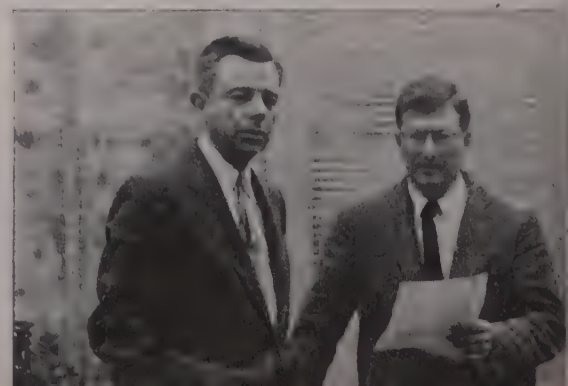
And the story shows something else, too: it shows the direction in which domestic architecture on the West Coast has been going since the Greenes, and one or two others gave it a big send-off. For the *differences* between the old house and the new revisions and additions are as interesting as the similarities: the change from a tall two-story structure of 1897 to a long, low-slung house today—a house designed to extend everywhere into its surrounding gardens; the change from leaded window panes to large, continuous walls of glass; and the change from elaborate, *art nouveau* decorations to plainer surfaces and simpler patterns.

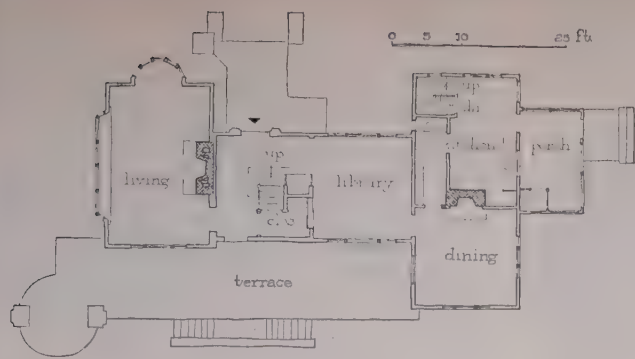
Many of these changes were initiated by the Greenes themselves before they retired after 1914.* For this early house—a “summer cottage” originally built for an eastern industrialist, James Culbertson—still shows some traces of the eclecticism to which the Greenes have been exposed during their architectural training. Yet the wonderful structural detail, the beautiful landscaping, the elegant trellises—all the things for which the Greenes were to become famous in later years—appeared in this house and were preserved in the remodeling.

* Only Charles Greene survives.
He lives in retirement in Carmel, Calif.

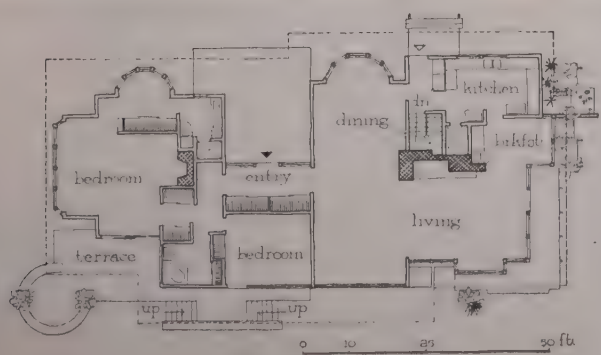


After *The Culbertson House today, and its remodelers, Smith & Williams*





Photos: Julius Shulman





Old pergola shows characteristic, rounded timbers



Old gable end with projecting rafters



Post and plates interlock at corners



Exposed beam ceiling with wood paneling above



Greene & Greene's fascinating wood details . . .

Part of the legacy left to our architecture by the Greenes is shown on this page: a fabulous vocabulary of wood details that has now become the regular idiom of house architects from the Bay Region to Southern California.

Here are the post and beam trellises, the gable ends with projecting rafters, the interlocking timbers, the plank ceilings—all thoroughly familiar today, all pioneered in the West by the Greenes and a few others.

Historians will recognize the influence of the Oriental tradition here, as elsewhere at the turn of the century. Others will find traces of eclecticism—as in the “English” leaded windows. But none can deny the fresh spirit in design, or the simple logic in construction.

Intricate timber connections were trademark of Greenes' work, made logical sense to carpenters tired of fakery.



New pergola uses square-edged timbers



New gable end has projecting rafters also



Footings carry interlocking post and beam frames



Exposed beam ceiling with plank deck



... were reinterpreted by Smith & Williams

Smith & Williams are prominent among those on the West Coast who owe much to the Greenes. Thus they were ideally qualified to remodel the old house.

The present owners, Mr. & Mrs. William Dunn, were planning at first to tear down the old house and to build a new one in its place. Smith & Williams, and their associate, William Rudolph, persuaded them to preserve the best of the old and to add whatever modern conveniences were desired.

The pictures on this page show how closely Smith & Williams stuck to the spirit of the original—without, however, limiting themselves to archaeological restoration. For these details are entirely modern—a new interpretation of the past with today's building technology.

Modern timber connections were bolted, and otherwise similar to Greenes' details.



Old main entrance was drastically remodeled, but important features were kept: e.g. the old wrought iron grille door (seen from the inside in the top picture) was retained, but its surrounding wall was replaced with a series of wood-and-glass panels reminiscent of a Japanese screen. Some of the old paneling and other original wrought iron grilles were re-used as elements of this screen (seen from the outside in the bottom picture).



Most important change was the removal of the top story (below) and the substitution of a low-pitched roof (opposite). Actually, this new roof is more "typical" of what the Greenes did in their later years than the original steep roof, so Smith & Williams may be said to have made the new house "more Greene & Greene" than it was to start with. Also retained: the lovely gardens designed by the Greenes in 1897, and now made even more accessible from the remodeled house.

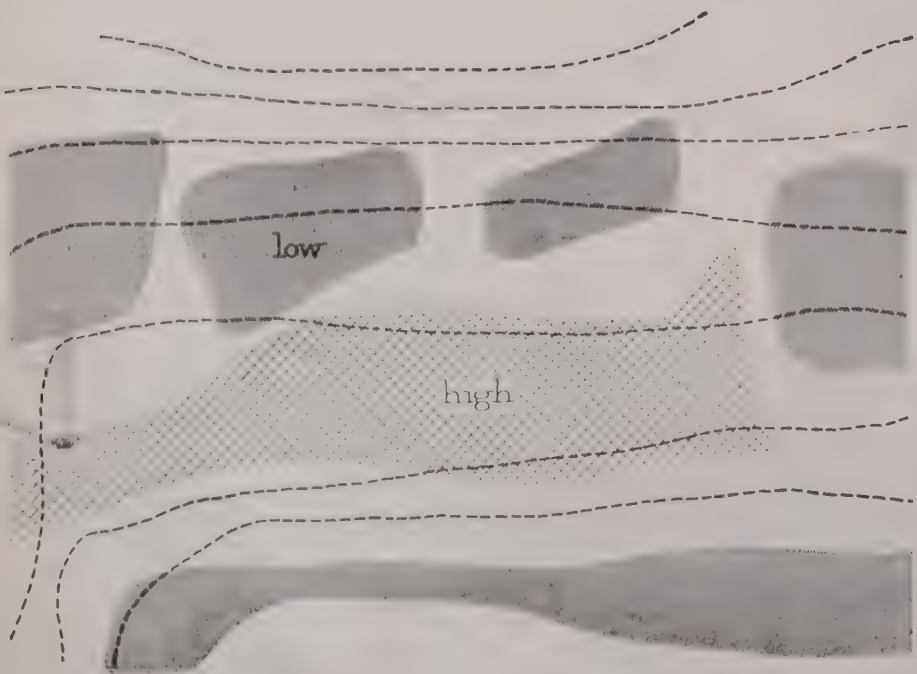
The best of the old retained,
the best of the new added







80% of storm water may be absorbed on wooded, grassy land and there may be no drainage problem. When raw land is next to your tract, don't assume water will never drain on yours. After raw land is covered with houses, roads, driveways and patios only about 20% of rain water may be absorbed and the rest may drain on your land if it is lower. Only an engineer can tell if it is advisable to drain such runoff water in a by-pass around your property and whether you should use open channels or underground pipe. Every tract is an individual problem. Drawings (left) show how houses and paving change drainage.



A cut-and-fill map like this can save you money by speeding up earth moving. On topographical map showing 1' contours, every second contour is heavily outlined. After average grades are fixed, all higher grades which must be cut down are shown in one color (cross-hatched in this drawing) and low areas which must be filled are shown in second color (gray here). With a master map of whole property a land planner can draw in streets, work out grading for individual lots, then give map to earth mover who can see whole project at a glance. Drawing from map by City Planners Wheelright, Stevenson, Langran & Fanning of Philadelphia.

EXPERTS SHOW YOU

"The greatest sin of land developers is bucking nature.

"They use bulldozers until each parcel of land looks exactly like all others. The results are erosion, dying trees or no trees at all. It costs more to buck nature than it does to adapt your houses to the site," Max Wehrly, executive director of the Urban Land Institute, told builders at the Chicago NAHB Convention in January.

Study drainage before you buy land
"Drainage can be very expensive," said

Charles Eveland, FHA's assistant chief land planner, "so before you buy land study adjacent sites and decide where surface water will come from. Employ an engineer to go over your site. Because there is no flooding now, it does not mean there will be none later. When you fill up land with houses, driveways, paved patios and streets you completely change its drainage characteristics."

Save money through better timing
"The greatest opportunity to save money in land development is in proper timing of street installations and other

public improvements," advises Edw. S. Holland, consulting engineer of Alexandria, Va. "Water, gas, sanitary and storm sewer lines should be put in before work starts on houses. Lateral connections for houses should be carried in, with trenches properly backfilled and compacted. Catch basins, curbs and gutters should be installed, then the base material put on the street. If streets are in, trucks and other vehicles will not be stuck. Savings in time will more than compensate for the cost of occasional damage to curbs.



Ankers Photography



James R. Dunlap



Chicago Aerial Survey Co.



Wrong way: (left-hand photo) in California one builder let house construction get ahead of road construction. This caused confusion at site, slower deliveries, cars and trucks bogged down in rainy weather.

Right way: (right-hand photo) streets should be put in before lots are graded or houses started. At Levittown, Pa., crews worked at night to build roads ahead of other construction. Heavy traffic was easily handled.

Builder Eddie Carr of Washington, D.C. shows a good example of land use (two photos of same site). He puts road foundations in early, avoids delays from trucks being stuck in mud holes, also makes good impression on public.

Right-hand photo is of finished site, shows benefits of saving trees. Carr says he adds \$200 to \$300 value to each house by saving trees. Buyers pay more for lots with trees.

Industrial districts, like two shown at left, help to reduce residential taxes, make communities more prosperous. Photo at far left is new Beltway Park near Washington, D.C. Its 400 acres are being developed by Morris Pollin and Sons and Eugene M. Howerdd, Jr. adjacent to their residential area. Left: Melrose Park, Chicago, where 26 major industries located on 133 acres between 1948 and 1954.

BETTER WAYS TO USE LAND

"When local regulations on improvements raise costs unduly it is often the lack of team work by professionals," said Holland. "Builder, architect and engineer must function as a team in the early innings. If you do not, the amateurs will force you to use stupid, costly regulations prevalent in many towns today.

"Greatest mistake," Holland claimed, "is the theory that all roads should have the same base thickness. This results in waste on short loop streets and cul-de-sacs. Roads should be built for

the traffic they will handle." He warned also against streets too wide. "Asphalt and bituminous street surfaces deteriorate rapidly when not used," he said.

Builder's success depends on type of community he creates

"Sheer number of houses sold per year may not be the answer to whether or not a builder is successful," said Land Planner Joe W. Langran of Philadelphia, "in the long run a builder's success depends upon the type of community he helps to create."

In developing land for good communities, he pointed out, neither the "scraped earth" policy nor the "save every tree" policy is correct. Some trees should be removed, such as tall and spindly trees that have grown close together (especially when close to paved streets), because they will die or be a hazard in high winds. But carefully saved trees will add value to property, as Builder Eddie Carr has demonstrated in his fine neighborhood development outside Washington, D.C. (see photos above, center section).

ADVICE FOR SMALLER BUILDERS

(A baker's dozen of practical ideas from the NAHB convention in Chicago)

Buy land on a piecemeal basis

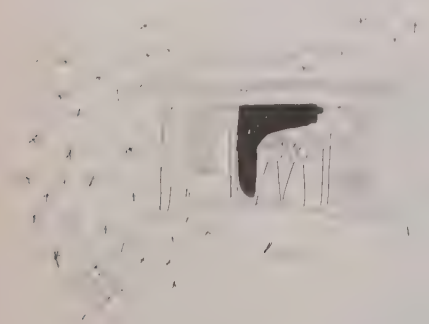
Developing land is the small builder's biggest problem. We buy from farmers, and we talk to them about capital gains, showing how they keep more money if we spread our payments over two or three years. We plat one section at a time and have a release clearance so that we pay full price for each lot as we use it.

JOHN WORTHMAN, Fort Wayne, Ind.

Trade with your old customers

Seven out of ten new houses I sell are trade-in deals, many of them with people I sold houses to five years before. I take a hammer with me and call on them, and I can always find a thing or two to fix up. Then I suggest a good trade. Since I built their house, I know what it's worth, what equity they have in it and what kind of people I'm dealing with. That makes the trade fairly safe and easy.

CARL ANDERSON, Virginia, Minn.



Try glass walls in cold climates

California designs with their large glass areas aren't too far out of line even in the coldest northern states. Heat loss through the glass is not a major problem in a well-designed house. Insulated glass is usually important only where people will sit close to the windows.

JAMES LENDRUM, director
Small Homes Council
University of Illinois

Make a try for capital gains

If a builder holds a new house six months for rental and then sells it, he pays only a capital gains tax because the tax is on a capital investment. If he does this too often, he will be considered a real estate dealer and pay income taxes instead. I'd be foolish to give you a number on how many times you can do this. However, if the builder moves into one of his new houses and then sells it, the profit is a capital gain. So far as I can see, he can move in and out of his new houses every week and gain this tax advantage. The only danger is that losses are not deductible.

JEROME KESSELMAN
University of Denver

Learn to trade by trading

The only way to learn how to trade houses is by getting into it, picking the best possibility first and feeling your way to others. No two deals are alike. But there's money in it if you've got the guts to do it, get good appraisals, good advice and a good lawyer.

WILLIAM J. COOLEY, Portland, Ore.



Get the farmer on your side

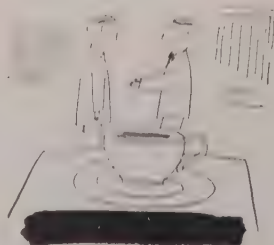
Tell the farmer who wants a terrific price for his land, "We don't know what it's worth—maybe more than you think. Let's make a joint appraisal." He may help pay for a topographical survey. I make a 4' x 5' plaster model, showing contours and drawing in roads with crayon. You'll find the farmer gets more and more fascinated with your model and your ideas for developing his land—and often he becomes more reasonable about his price.

DAVE AUGUSTUS, Indianapolis

Save time with prenotched stud plates

We can buy prenotched stud plates cut 1/4" deep every 16". They cost an extra \$10 per 1,000 bd. ft. but we more than save that amount because we don't have to measure to put up our studs.

ELWOOD TREADWELL, Niagara Falls



Sell 'em "at coffee"

In my town, people like to drink coffee. Every day I go to a different place to drink coffee. In another area it might be better to go to different restaurants or bars. In my case, I edge up to the next guy and talk about houses. You'd be surprised how many truck drivers and ordinary people have enough money to buy houses.

CARL ANDERSON, Virginia, Minn.

Take advantage of FHA services

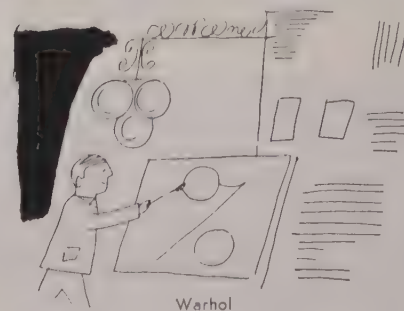
You can get a lot of free help from the FHA. It has helped many one- and two-house builders become big builders. FHA can help with land planning, sanitary requirements and other problems. Go to FHA early, before you start construction. Get its commitments before you go ahead so the FHA appraiser can see your houses under construction and can allow full credit for what he sees.

JAMES J. FLANIGAN, chief of operations
FHA, Chicago

Don't build all roads at once

Don't put all the roads in your new subdivision at once. Just cut them in, put on gravel topping, and make them winding and pretty. Then sell more lots—people like to get in early and they all like a chance to get a bargain.

DAVE AUGUSTUS, Indianapolis



Keep after the lenders

Don't deal with just one lender. Have several. What any one lender allows on a mortgage at one time depends on how much money he has that month. One month he may give you a 65% mortgage because he is short of mortgage money. Another month he may allow you 80%.

STANLEY WRONSKI, president
Beverly Savings & Loan Assn., Chicago

Buy cooperatively from manufacturers

The smaller builders in Los Angeles are buying appliances cooperatively now, on F.O.B. open orders. We're saving 15% on ranges, for example.

ERNANI BERNARDO, Van Nuys, Calif.

Solve problems through local HBA's

In some states there is \$500 difference to the builder between building an FHA and a VA house. Around New Mexico the difference amounts to only \$25 or \$50, simply because the big and little builders built up a war fund and spent a lot on engineering data to back our proposals. We put this ammunition in our pistol pockets and took it to VA and FHA. The facts convinced them.

ED MANKIN, Albuquerque, N. M.

Upson ships ready-to-apply

SOFFITS, CARPORT AND PORCH CEILING DELIVERED CUT-TO-SIZE, PRIMED ...READY TO APPLY!

Think of it. You can get *primed* soffits—pre-cut to sizes you need—ready to apply. Vented, too. And you can get carport and porch ceilings in the same way. At site, just apply and paint. No waste. Check into the savings now.



FACTORY PRIMED SIDING, CUT TO UNIFORM LENGTH, READY TO FINISH.

Upson delivers siding pre-primed in uniform lengths. No prime paint to buy or apply! Paint and labor costs sink to new lows! Finished job durable and beautiful. Upson Primed Siding is now in wide use. Get facts now.



**Upson
machines
save you
money!**



High speed machines in the big, modern Upson plant at Lockport, New York, produce Upson materials in quantity, on time to meet your needs.

How Long Island builds the split

charges you through the nose for it." After he has convinced his sub, a builder who wants to try truss framing usually must get special exemption from local codes that require trusses to be spaced 16" on centers. Even so, there is little or no saving unless the builder goes all the way and switches over from wall-bearing partitions to an open plan. His own design preferences and what he thinks are those of his customers generally prevent such a major change.

Are conservative buyers to blame?

Architect Stanley Shaftel comments: "Design, not construction is backward on Long Island. If people would accept better planning, better houses, more modern design, then we could investigate better construction."

2 x 4 thinking retards progress

In its native habitat the Long Island split level is made of thousands of small pieces, a regular mare's nest of 2 x 4's to 2 x 12's. With two roof levels and perhaps three different pitches, jogs and returns in the exterior walls and the crazy quilt of wall to ceiling angles, the split is not a natural for standardized components.

Framing the split is a fussy job although there is no reason why it should be so hard. Contemporary splits in many parts of the country, and a good number of splits on Long Island itself, demonstrate many things that could be done to simplify the work on the typical Long Island job.

With "un-split" sides and roofs (see H&H, Feb. '56, p.136), a well-designed split could use roof trusses, symmetrical or asymmetrical, and wall panels, too.

No standard module is used

Builders admit that no real system of modular planning is used on the Island. Some cite beam lengths, others dry wall size and others 16" stud centering as the module that comes closest. But Long Island floor plans and details don't really fit any module. Although some builders will admit that modular planning has shown its worth, almost none seem to have any idea of trying.

With its special situation making for lower costs and its standpat attitude towards fundamental change, Long Island is far from offering US home building an ideal



Portable power saw is basic tool on L.I. projects.



Small backhoe trencher digs sewer lines on sites.

master pattern. Yet Long Island builders and subs are often quick to adopt an improved technique to lower costs, provided it does not require a really radical departure from their basic way of building.

Some new ideas used

For example, it is common practice on Long Island now to precut and sometimes pre-nail studs. Wall framing is tilted up into position, but without the sheathing nailed on. Wall panels are framed in big sizes so the addition of sheathing would make the panel too heavy for tilt-up.

Cantilevering floor beams out past foundation walls is another new development. Builders find they save on foundation costs while increasing the area of the floor plan. Two plumbing walls with 6" or 8" between are used to take pipe trees and stacks for baths back to back or single. A few builders have their plumbing subcontractor prefab pipe trees on the site and the subs take to the idea readily.

Dry wall is used almost exclusively. Taping machines for finishing the joints are just coming into use with a few builders. (Plaster walls have been rare on the Island since 1948.)

Transit-mix concrete is used for foundations. Even on the largest jobs, builders have not found that batch plants on the site pay off.

Hot air heating popular

Hot air heating is very popular compared to a year ago. It gives the buyer an option of air conditioning, and although few buyers are installing air conditioning now, hot air is used in almost 40% of the new houses.

Steel bucks are rapidly replacing mill work bucks. Builders find the total time required to install steel is less than half of the three hours it used to take for mill work. Steel bucks are easily handled and stored, need not be primed.

Prefabricated window units of structural mill work are being used in some higher priced split levels. The big window units are frequently placed in walls with twin 2 x 12's for a continuous header running the length of the wall. Windows are not run to the top of the wall because most splits have a roof overhang over the big windows./END



Prefabbed windows are of structural millwork.



Drywall in splits must fit around many small surfaces.



"Buyers tell us they like Flexivents,"

say Henry Bass and Marvin Rosen, builders of Hilaire Estates at Deer Park, Long Island. "We're enthusiastic over Flexivents. Many buyers have told us how much they appreciate Flexivent's ease of operation . . . ease of cleaning."

...and their dealer says

"The Flexivent sells itself," says Don Axinn of Axinn & Sons Lumber Co., Queens Village, L.I. "Our window sales have doubled because of Flexivent's ease of handling, versatility, tremendous consumer appeal. It's a prime favorite with our project builder customers."



help in boosting home sales"

Andersen *Windowalls*

TRADEMARK OF ANDERSEN CORPORATION

ANDERSEN CORPORATION, BAYPORT, MINNESOTA



New building going up? Provide **"well" lighted access to the roof** with the Wascolite Hatchway!

One of the new Wascolite products for Daylighting
Plus, this dual-purpose Hatchway is completely prefabricated, leakproof and maintenance-free.

Write for new Hatchway folder.

WASCO PRODUCTS, INC.

Cambridge 38, Massachusetts

WASCO CHEMICAL (CANADA), LTD. • TORONTO, ONTARIO

NAHB's PRES. HAVERSTICK

continued from p. 141

contribute. The people who contribute the most, get the most. They are the good American citizens."

Part of his community activity has been through his local Methodist church. "I've had two men who helped me. One was my early Sunday school teacher, and the other was an early pastor who is now a bishop. The way I can repay them is to help others. I'm dedicated to it." He is chairman of his church policy committee and a member of another committee to get a new church built.

Haverstick has taken an active part in local politics, was a member of the Republican County Executive Committee until he resigned a short time ago. He is also a Shriner and a member of the Dayton Kiwanis Club.

But his greatest community activity has been the home builders association. He believes in the importance of NAHB as strongly as any member ever has, backs up his faith by a great deal of hard work. "I've spent an awful lot of time away from my business in the last few years," he says.

'He just dogged it right up to the top'

Joe helped to found the Dayton home builders in 1942, was a member of the original merger committee when the new national NAHB was founded the next year. He helped to set up the Ohio State Chapter (now one of the strongest in the country, accounting for 10% of total NAHB membership). He has held every national office (if you count one office in the predecessor organization), has been chairman of the convention three years, chairman of several national committees, and president of both his local and state organizations. He has helped establish dozens of Midwest chapters. "I've made so many speeches to builders that I could write a book about all the strange things that happen," he said recently when contemplating the year of speech making ahead.

It is his 14 years' experience in association work that are his greatest technical asset. NAHB has never had a president who knows the intimate details of local, state and national work as Haverstick does. He not only knows the work but he knows strong men in every region. Because of this wide knowledge, he was able to appoint his committees fast and get them moving rapidly.

Speaking of Joe's long record in the

continued on p. 200

Insulite Roof Deck saves \$100 per M sq. ft. on open beam ceiling!

Builder Robert P. Gerholz, Flint, Mich., adds the beauty of exposed beam ceilings to his 800 home Westgate Park development — and gets big savings, too! Insulite 3-in-1 Roof Deck saves 10¢ per sq. ft. on his cathedral ceiling homes with open beam construction. Mr. Gerholz is past President of NAHB and President of Gerholz Community Homes.

Today, consumer preference means Mr. Gerholz builds

9 out of 10 Westgate Park homes with Insulite 3-in-1 Roof Deck. No wonder his development has won two awards from NAHB—and now his home at left is featured on the February cover of *LIVING For Young Homemakers*.

Send for complete information now! Actual on-the-job pictures and construction details. Write Insulite, Minneapolis 2, Minnesota.



It's insulation with vapor barrier. No need for other insulation. 2" Roof Deck is comparable to 2" wood deck plus 1" fiber-board insulation. Available in 3 thicknesses to meet insulation requirements in any climate. Absorbs sound better than wood or plaster. Exclusive vapor barrier protects against condensation within the unit.

It's roof deck—2' x 8' units cut application time as much as 45%. Only one material to handle. New Insulite Roof Deck eliminates need for separate roof boards, insulation, lath and plaster and ceiling finishing. Insulite Roof Deck can save 12 man hours per 1000 sq. ft. of surface compared with 2" x 6" D&M roof sheathing.

And finished ceiling—The underside of Insulite Roof Deck is finished with flame-resistant surface. Lay Roof Deck over pre-finished beams . . . and ceiling is done. No need to plaster, paint, stain, wax. Cuts labor and material costs. In 2' x 8' units, 1½", 2" or 3" thick—with or without vapor barrier membrane (depending on climate).

build better and save with
INSULITE

INSULITE IS A REGISTERED TRADE-MARK



INSULITE, made of hardy Northern wood

INSULITE Division of Minnesota and Ontario Paper Company, Minneapolis 2, Minnesota

here
IS a
guaranteed
formula
for selling
houses
FASTER



The key rooms in selling today's new house are the bathroom and the kitchen. Builders have discovered that *nothing* adds bathroom sales-appeal like a beautiful, practical Permalume shower enclosure, unconditionally guaranteed for 17 years.

No other line in America is as complete as Permalume, offers as much to the builder to help him sell his homes and Permalume is better—easier to buy, easier to install, easier to sell.

Shower Door Company of America has developed a complete builder-tested, builder-directed merchandising package to help you sell your own specific houses—personalized to your own project or development. *Permalume is the ONLY* line that offers you this personalized merchandising plus...

Permalume's

Personalized Builder-Merchandising Package

- ✓ A specially prepared and designed brochure on Your own Particular Development or Project—photos, floor plans, location maps and features of YOUR houses. Supplied free in large quantity, with complete directions for their most effective use.
- ✓ A complete free newspaper advertising mat service—and ad layouts—to help you advertise your development.
- ✓ Cost-sharing plan on newspaper, radio, TV, direct mail or outdoor advertising, with professional design assistance.

WRITE FOR FULL DETAILS, LITERATURE,
SAMPLE BUILDER BROCHURES

Shower Door Company
OF AMERICA

1301 CHATTAHOOCHEE AVE., N. W., ATLANTA, GA.

WORLD'S LARGEST MANUFACTURER OF SHOWER ENCLOSURES

NAHB's PRES. HAVERSTICK

continued from p. 198

home builders association, a Dayton builder said: "He just dogged it right up to the top. He's a good man and he knows the business. When a builder turns to Joe for help he finds that Joe knows something about every problem and is never at a loss for words."

Big push is on community facilities

One of NAHB's major objectives this year is to help builders get a better understanding of community facilities, long called "the builders' No. 1 problem." Much of the push will come from Haverstick, who thoroughly understands the importance of this problem. Dayton's Montgomery County Home Builders has probably gone farther in association work to improve community facilities than almost any other chapter.

Over a year ago the Dayton builders hired Elmer Kremer away from the local FHA office to be their executive director. Kremer has done an outstanding job, has encouraged Dayton builders to take an interest in city and county affairs, and also helped dozens of "outside" groups to understand the builders' problems. Bob Haverstick (Joe's brother) is chairman of the highly important Planning Commission of Kettering (a new community adjacent to Dayton) where there is much building. Other builders are members of the Kettering Council, committees on architectural control, construction standards, county planning, unified codes, area services, and of strategic Chamber of Commerce committees, including a director of the Citizens Housing committee.

Builders do not use these committees to get in high pressure selling for themselves, Joe says. They realize that they must understand community problems and citizens committees and governmental groups must understand builders' problems.

It would be natural for Haverstick to bring this background of interest in community problems to the national organization and to spread it among local chapters in speeches this year.

Does some remodeling, some prefabs

Haverstick operates his own business with three companies. The parent firm is J. N. Haverstick & Sons, in which his brother Bob is a partner, as was his father until his death a little over a year ago. Another company is Haverstick Builders, Inc., of which Joe is

continued on p. 204



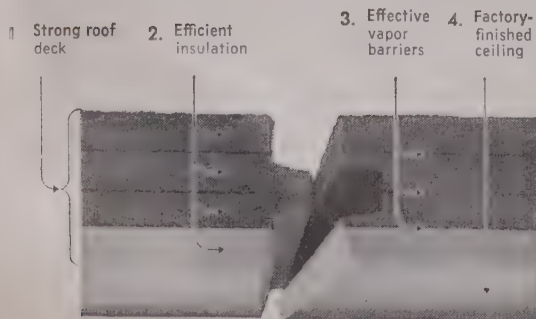
1. BUILDING . . . to help you build

In just a few months, Armstrong Cork Company's new plant in Macon, Georgia, begins production. This means an increased supply of Armstrong Building Products to help you build faster, easier, and more profitably. Every product manufactured in the new plant adds extra value and sales features to the contemporary homes you build. For a close-up story on one of these modern materials — Temlok Roof Deck — turn the page.



2. TEMLOK ROOF DECK AVAILABLE FOR THIS YEAR'S BUILDING

With Temlok Roof Deck off the "scarce" list, you can make plans now to use this cost-cutting modern material. Temlok Roof Deck needs only beams to support it and built-up roofing to weatherproof it. It completely eliminates roofing boards, rigid roof insulation, roofing paper, and ceiling finish . . . and also much of the cutting and fitting that conventional materials require.



3. BIG SAVINGS IN CONSTRUCTION WITH 4-IN-1 BUILDING MATERIAL

Four men can cover a 30' x 40' roof in 7 hours with Temlok Roof Deck, compared to 14 hours with conventional materials. The resultant savings run as high as \$250 per house. Each time a carpenter installs a 2' x 8' piece of Temlok Roof Deck, he's actually installing (1) 16 sq. ft. of sturdy roof deck . . . (2) 16 sq. ft. of roof insulation . . . (3) 16 sq. ft. of vapor barrier . . . and (4) 16 sq. ft. of finished ceiling. He's making this entire installation with one easy-to-handle material . . . in one fast operation.



4. GET A FINISHED CEILING AT NO EXTRA COST

As your men install Temlok Roof Deck from above, a completed exposed beam ceiling is created for the room below. No additional finishing is needed. The underside of Temlok has two coats of light ivory paint, factory applied to interior face. Besides giving your homes a distinctive open beam effect, Temlok is a ceiling that never cracks, eliminates call-back repairs.



5. TEMLOK ROOF DECK GIVES YOUR HOMES NEW SALES APPEAL—INSIDE AND OUT

For free booklet that shows you how Temlok Roof Deck cuts costs while adding value, write Armstrong Cork Company, 3703 Sixth Street, Lancaster, Pa.



Flat and low-pitched roofs are growing in popularity. You can show prospects that Temlok Roof Deck offers the benefits of contemporary styling. Open beam ceilings appeal to modern and traditional tastes alike. And Temlok's efficient insulation will impress every prospect.

Plan your 1956 homes with

Armstrong BUILDING MATERIALS

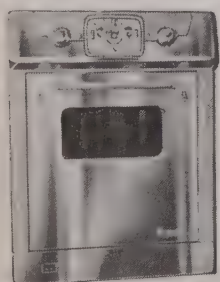
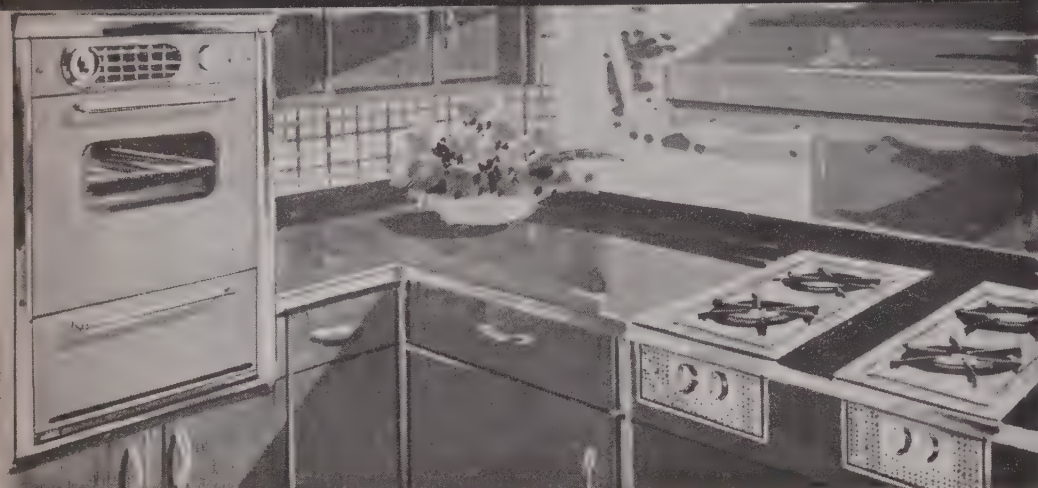
Temlok® Roof Deck • Temlok Sheathing • Temlok Tile • Cushiontone® Ceilings



PREWAY Bilt-Ins...

gas or electric

make your dollar more productive



Patents Pending

Choose PREWAY gas and electric Wallchef ovens in satin stainless steel, white, Sunshine Yellow or Vintage Green enamel. PREWAY electric Wallchef also available in antique copper.



Approvals:



Acceptable to: F.H.A. — V.A.

Illustrated is PREWAY'S four-element electric Counterchef in satin stainless steel. Available, too, in two-element units. PREWAY gas Counterchef also designed in two or four-burner units, in satin stainless steel or white enamel.



The Most Complete Line of Built-In Cooking Equipment for the Home.

PREWAY Inc.

2356 Second St., N.
Wisconsin Rapids, Wisconsin

NAHB's PRES. HAVERSTICK

continued from p. 200

president and treasurer, Bob is secretary, and Joe's mother is a nonactive vice president. This company handles land development, does conventional building. A third firm is Haverstick Homes, Inc., of which Bob is president, Joe's father-in-law, George Jaeger, is vice president, and Joe is secretary-treasurer. This firm has a National Homes franchise and has built about 100 prefabs in the past two years. It is not building Nationals now as it has no land at the right price.

The Haversticks' current model is a split-level house, a new design which they are building on one-third to one-half acre sloping lots and selling for \$25,000 to \$28,000. The tract consists of about 100 lots but the Haversticks may sell some lots to other builders.

George Jaeger has been in charge of remodeling work and until recently there were usually some jobs being done. Speaking about remodeling, Joe says: "Remodeling puts us in contact with a fine bunch of people. They don't buy new houses but they are leading businessmen. They hire a lot of people and often their employees ask them to recommend a builder. A number of people call us when they have problems. We did one job that cost \$16,000." But with Joe away so much on NAHB affairs and Bob spending a lot of time at the motel they are building on the Ohio Turnpike near Toledo, there has not been much time to give to the remodeling business. The motel, a Holiday Inn, will open in May.

Works with architects

Although Haverstick really enjoys drawing house plans, he knows they are a job for a professional, so he retains Architect Roland Rosser, a past president of the Ohio State A.I.A. But Joe keeps in touch with trends in public taste and carefully studies new ideas for floor plans. He works closely with Rosser. It was Joe who saw split-levels in the East, got interested in them and urged Rosser to design his first one.

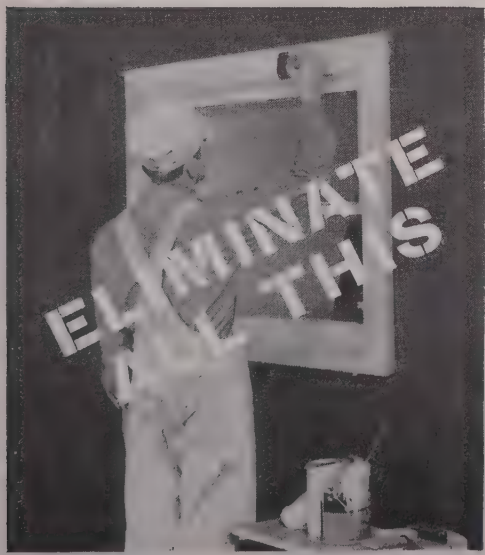
Like many other builders, Joe Haverstick has made enough money from his building operation to live well and to enjoy that badge of the successful builder, a Cadillac. "I'm not wealthy, but I live comfortably," he says. "We're folks who like to have a good time, too." But much as he enjoys his family and comfortable living, this year he will see less of his family and more of hotel life than he ever has. For he is a man devoted to NAHB and is giving this full year to it.

these 4 customer attractions!



Re-glazes in moments! Best-Vent is glazed with Koroseal vinyl plastic—the miracle glazing strip that simply presses into place around the glass. Use it over and over again. No muss, no fuss—so easy that a housewife can do it in just minutes.

and trimmed in minutes!



Just look at the work you can eliminate! No need to shim, square or glaze Best-Vent Windows. No separate installation of sill, drip cap or side frame. No need to sand, prime, paint or clean glass—and the inside finish trim simply snaps into place!

BEST-VENT[®]

PRIMARY ALUMINUM WINDOW

Here is the first basic improvement in window design in the last hundred and fifty years. Here at last—is a window that automatically provides healthful, double-ventilation.

Opens the way a window should!

Just the touch of a finger opens both top and bottom sash—instantly, simultaneously. Opening this window actually requires less energy than a lady uses in powdering her nose! Operation is smooth and effortless because the weight of the upper sash actually helps raise the bottom!

Ventilates the way a window should!

Hot, stale air "piling up" at ceiling level is automatically released; instantly replaced by cool invigorating air flowing into the room. It's a balanced air circulation cycle that's constant, gentle, draft-free; delivers the exact amount of air desired!

Designed in consultation with window-conscious builders!

Best-Vent is geared to modern methods of residential construction, designed to save time on installation, built to eliminate costly "call-backs." And Best-Vent's sensibly priced. The Good House-keeping Seal of Approval assures customer acceptance at no cost to you!

You need all the facts!

Best-Vent is only one of the quality primary aluminum windows in the Per-Fit Line—double-hungs, sliders, picture windows, window walls. If your building supply dealer isn't acquainted with them, let us know—or have him write to:

PER-FIT PRODUCTS CORPORATION
1109 E. 52nd Street • Indianapolis, Indiana

How to design for a by-passed lot

Architect exploits air conditioning to build a quiet house on busy city corner, slashes cooling costs with roof pond

Problem: How do you put a salable house on an odd lot where traffic noises and city dirt are major drawbacks?

Solution: Design a sealed house with its own automatic climate built in so noise and dirt can be shut out the year round.

A striking example is the long, low-slung 1,350 sq. ft. flat-top house (photograph below) that is causing a lot of comment in Hartford, Conn. This house not only shows how a poor lot was turned into a good site but it embodies excellent ideas for cutting home cooling costs.

The house was designed by Architect William H. Borthwick who put special emphasis on reducing the big sun load on the frying-pan roof. This is highly important because hot roofs account for as much as 40% of the total cost of cooling a house. Borthwick first insulated the roof and then added a 2" deep roof pool to further reduce heat penetration into the house. Roof surface is white marble chips.

Pool was made this way: The roof is dead level and is ringed with a water curb. Water is supplied through a 1/2" pipe to a copper pan. The water fills the pan, then overflows onto the roof. A chunk of rock salt placed in the pan mixes with the water and discourages mosquitoes. The pan also protects the marble

chip roof surface from being worked away. Cost of the water distribution system was \$125.

Pool cools house 10°

The pool is so successful that Borthwick says it alone "actually decreases inside temperature by about 10° when it is 95° outside." This is understandable because engineers figure that a 2" pool can cut heat transmission by about 70%. Much of the cooling effect is due to water evaporation. Builders of pitched-roof houses can thus expect results as good or better with a roof spray system.

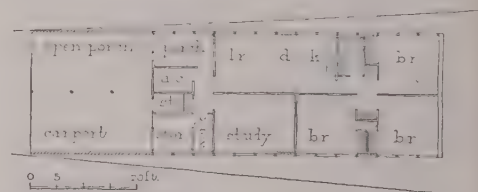
The water pond not only cuts the cooling requirement but also increases the life of the roof by protecting its surface from the punishing effects of constant sun.

Other cooling features: Although Borthwick virtually ribboned the house with glass he used heat-absorbing sheet plate that turns back 50% of the sun's heat. The narrow west end of the house is a solid wall barrier to the summer's broiling afternoon sun. On the east the carport shields the occupants from the hot morning sun. Borthwick points out that air-conditioning makes cross-ventilation unnecessary so he could avoid costly set-

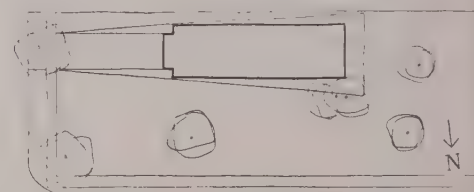
continued on p. 212



Entire roof is treated as white plane. Dark ribbon of windows integrates house, emphasizes length. Carport above faces east.



In-line plan is oriented north and south, with front kitchen and rear living for privacy. Air is supplied through slab ducts.

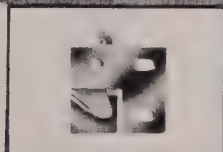
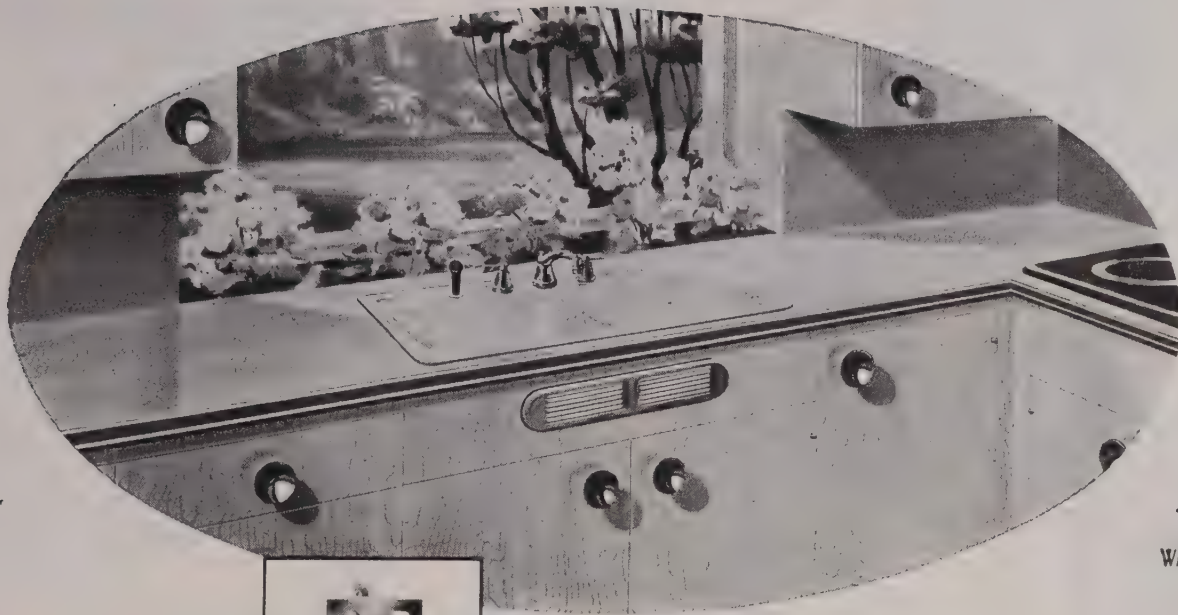


Site is long, narrow corner lot approximately 180' x 80' deep, enhances house with plenty of tree-sheltered ground.

Long, low house stretches for 80', fits neatly on left-over lot



to get
beauty, economy,
and real sales appeal
in your kitchens, use...



PIN HINGES FOR FLUSH DOORS



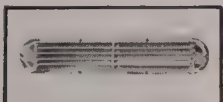
SPOTLIGHT® KNOBS FOR DOORS & DRAWERS



COMFORT GRIP® PULLS FOR CABINETS



CUPBOARD DOOR FRICTION CATCHES



METAL VENTILATING LOUVERS

...washington® line

Cabinet Hardware

As installed in this kitchen it gives luxury and convenience plus a warm appealing appearance. Ease of installation saves building time and money.

Hardware shown at left, plus a selection of semi-concealed inset hinges, rubber roller friction catches, sparkling Mirrorpulls®, and other useful items round out the "Washington" Cabinet Hardware Line.

WASHINGTON® LINE

Manufactured by Washington Steel Products, Inc.
Dept. HH-3, Tacoma 2, Washington

For a catalog on "Washington" Cabinet Hardware, and other building accessories, fill out the coupon and mail to the manufacturer.

To: **Washington Steel Products, Inc.**
Dept. HH-3, 1940 East 11th Street, Tacoma 2, Washington
Gentlemen: Please send me catalog information on the Washington Line

NAME _____

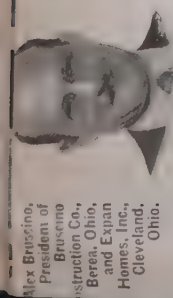
ADDRESS _____

TYPE OF BUSINESS _____

CITY _____ ZONE _____ STATE _____

"ARCO Paint Speeds Completion . . . Slashes Costs"

reports Ohio Builder



Alex Brusino, President of Brusino Construction Co., Berea, Ohio, and Expan Homes, Inc., Cleveland, Ohio.



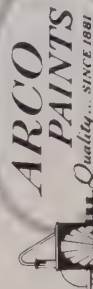
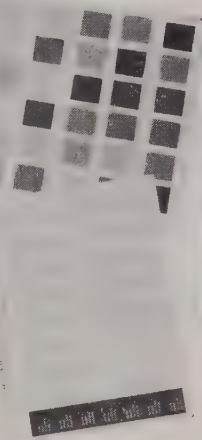
The "Seaway" by Expan Homes Inc., Cleveland, Ohio, features 3 large bedrooms, a gracious living-dining room with studio ceiling and spacious kitchen-breakfast area . . . a homemaker's dream come true.

Builders everywhere are enthusiastic in their praise of Arco finishes. Prefab builder and erector Alex Brusino says: "We're in the process of building a 400-unit Expan Homes development in Berea, Ohio, using Arco Alkyd Flat Wall Paints, Varnishes and Enamels. We're keeping painting costs down because Arco works easier and covers more square feet per gallon."

Other experienced builders, too, find Arco products most economical in the long run. All over the country painting economies result from use of Arco alkyd interior wall finishes, one-coat texture finishes for dry wall construction, and quick-drying, durable Arco Alkyd House Paint.

NEW! FREE ARCO COLOR STYLING KIT

Now you can present model homes and speculative homes in smart, sales-stimulating color combinations. Arco's new color styling kit offers 111 professionally styled color schemes and 30 swatches of colorful, fade-resistant Arco Alkyd House Paint Colors. Speed color designation and development planning with Arco's Color Styling Kit. Write today for your copy



TESTED FIRST TO LAST!

USED ON
BRUSCINO'S
EXPAN
HOMES
INC.

(2) ALKYD HOUSE PAINTS AND STAINS

(3) TEXTURE WALL FINISHES

(4) MASONRY PAINTS

(5) TRANSPARENT WATER REPELLENT

(6) DUM DUM Non-Shrinking CALK

THE ARCO COMPANY
7301 Bessemer Avenue
Cleveland 27, Ohio

(1) (2) (3) (4) (5) (6)

☐ Please send technical information on products checked above.
☐ Please ask your Arco Specialist in this territory to call.
☐ Please send Arco's new color styling kit

NAME _____

COMPANY _____

ADDRESS _____

CITY _____ STATE _____

Technical News

continued from p. 203

backs and use sealed glass that reduces window costs and eliminates screens.

The house is "peacefully quiet" despite being on a busy corner in a heavy traffic area. And the wide use of glass opens up the house to the outside, helps counteract psychological resistance to sealed windows.

How to avoid nail popping in dry-wall



Typical **flaw** is pointed out by R. F. Luxford after panel had been seasoned for 52 days.

Says Forest Products Laboratory's R. F. Luxford:

"The best assurance of eliminating nail popping is to use framing material that has been seasoned to the moisture content which it will attain in service. Annular and helically threaded nails have high nail-holding power, but tests indicate that . . . these nails may retard nail popping, but they by no means eliminate it."

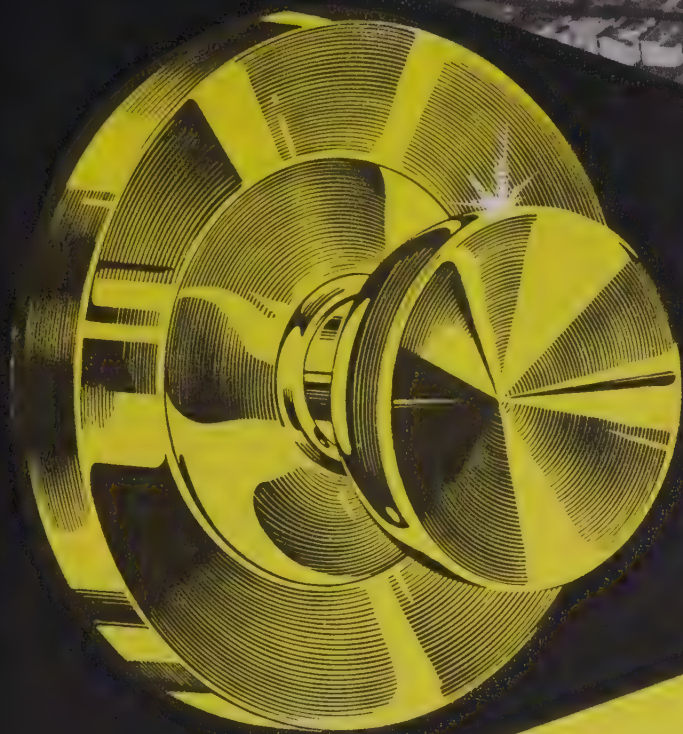
Forest Products Laboratory has added to the knowledge of nail popping with Mr. Luxford's latest research. While confirming many of the qualities of the annular grooved dry wall nail (Aug. '54 issue), the study showed that expanding or contracting framing members can still pop or dimple nailheads.

After 52 days of drying the test panels (80° F. and 30% relative humidity), popping had occurred regardless of the type of nail. "It was significant, however, that the annularly and helically threaded nails required a greater period of exposure before the appearance became marred."

When nails were driven into green wood, the increase in the amount of nail shank exposed is closely related to the amount of shrinkage. The threaded nails behaved somewhat better than the plain-shank nails, indicating that such nails may prove more satisfactory in resisting dry-wall construction than nails with plain shanks.

Luxford also found that resetting the nails and refinishing the surface after normal moisture content was reached meant the end of further trouble, even after prolonged exposure.

Full details of Luxford's research are given in a 16-page booklet titled "How to avoid nail popping in dry-wall construction." The booklet is available from Forest Products Laboratory, Forest Service, US Dept. of Agriculture, Madison 5, Wis.



"900" SERIES SUNRAY

all eyes are on **WESLOCK'S**

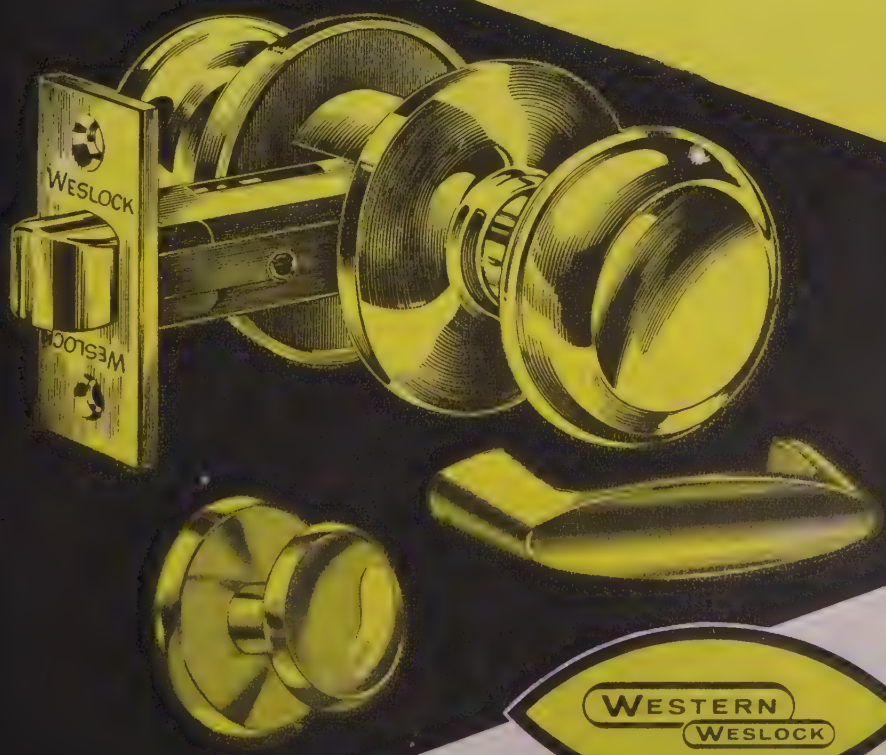
Styling

With the addition of the brilliant new SUNRAY design, Weslock now offers two undisputed leaders in contemporary residential lockset styling.

SUNRAY is a worthy companion to the popular CONCAVE design, now the accepted standard of modern styling.

Both SUNRAY and CONCAVE designs are available in perfectly matched cabinet hardware to give a custom-styled effect throughout the home.

Both series are available in Weslock's original Black Rose® finish at no extra cost.



"500" SERIES CONCAVE

Write for further information.



WESTERN LOCK MFG. CO.

Manufacturers of Weslock Residential Locksets and Building Hardware

GENERAL OFFICES: 211 NORTH MADISON AVENUE, LOS ANGELES 4, CALIFORNIA • FACTORY: HUNTINGTON PARK, CALIFORNIA

for further details, check numbered coupon, p. 298

Comfort is a Special Sales Feature...

When your homes have

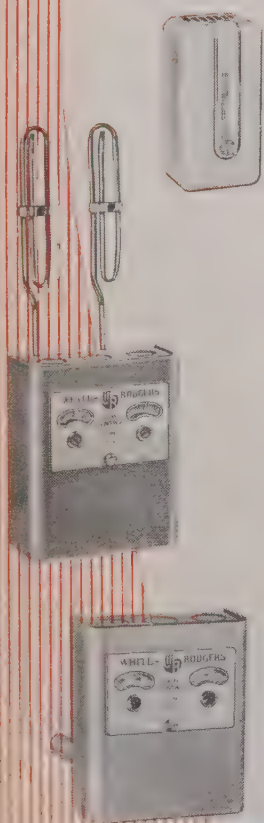
WHITE-RODGERS

Hydraulic-Action[®]

CONTROLS

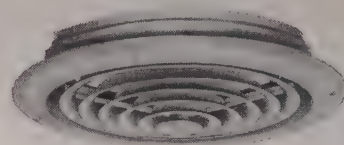
for Heating and
Air Conditioning

You can really sell the comfort of a home equipped with White-Rodgers Hydraulic-Action controls. Here is the most sensitive and accurate response to temperature change... easy to set and trouble-free for years to come. More than 7,000,000 Hydraulic-Action controls have been built by White-Rodgers. They are doing such a fine job that you may be offered imitations... but insist on the original.

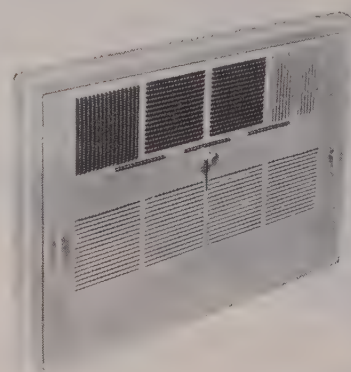


WHITE-RODGERS *Controls*
FOR MODERN COMFORT
HEATING • REFRIGERATION • AIR CONDITIONING

St. Louis 6, Missouri • Toronto 8, Ontario



a. Adjustable ceiling diffuser has a performance range from a flat horizontal air movement at the ceiling to a concentrated vertical pattern. To adjust, turn center cap, ring assembly moves up or down to the pattern desired. No. 72, shown above, is available in six listed sizes, ranging from 8" to 22". Diffuser can be used with or without damper. Prices range from \$19.40 for 8" size to \$48.80 for 22" size without damper. Air Control Products, Inc., Coopersville, Mich.



b. Hydraline recessed room air conditioner shown above is only 4¾" deep, fully recessed between standard studding. Model shown here can provide up to 25% outside ventilation air, comes completely assembled with installation and operating instructions. HAC series designed for use with Hydraline series HBP boilers, HCP chillers and HSP boiler-chiller combinations. Face grille panel includes an adjusting knob and damper for controlling the mixture of outside air with room air. Hydraline Products, Borg-Warner Corp., 18538 Mack Ave., Detroit 36, Mich.



c. Stapling hammer is especially designed for jobs where broad surface contact is needed to hold soft materials. Staples are twice the width of ordinary ones to give great holding power on paper and other light materials, such as roofing felt, flashing and building papers. H2BR holds strip of 100 staples in its magazines, drives a ¾" staple all the way with one blow. About \$18.50. Bostitch, Westerly, R.I.

continued on p. 224

WHEN YOU SEE THIS KIND OF WORKMANSHIP,
EXPECT TROUBLE...



GOOD workmanship is one of the most important factors in preventing leaky brick walls.

Good workmanship includes filling the bed joints and head joints—wetting the brick—and backplastering the face brick.

Expect trouble when mortar is dabbed only on the corners of the brick, even when the head joint is slushed.

Because it is so workable, Brixment makes it easy for the bricklayer to use

enough mortar to completely fill the joints, and still lay the brick easily and accurately to the line.

Brixment mortar has greater plasticity, higher water-retaining capacity and

bonding quality, greater resistance to freezing and thawing, and freedom from efflorescence. Because of this *combination* of advantages, Brixment is the leading masonry cement on the market.

BRIXMENT

LOUISVILLE CEMENT COMPANY, Incorporated, LOUISVILLE, KENTUCKY,

continued from p. 218

for further details, check numbered coupon, p. 298



BEAUTIFUL THIN LINE SILHOUETTE
FINEST DOUBLE WINDOW PROTECTION
ULTIMATE CONVENIENCE OF SLIDING SASH
THE LOWER PRICE
MEANS SAVINGS FOR YOU

*Sash
conveniently lift out
for cleaning*

Note These Features:

- TIGHTLY INTERLOCKING SASH
- MOHAIR WEATHERSTRIPPING
- FIBER GLASS SCREENS
- ALL SASH REMOVABLE FROM INSIDE FOR EASY CLEANING
- GLAZED WITH KOROSÉAL
- NO PUTTYING OR PAINTING
- NOTHING TO RUST OR ROT
- LASTS FOR THE LIFE OF THE HOUSE



- Fiber Glass Screens
- Comes Complete with Aluminum Frame
- Lifetime Aluminum Extrusions
- Windows Glide on Nylon Bearings

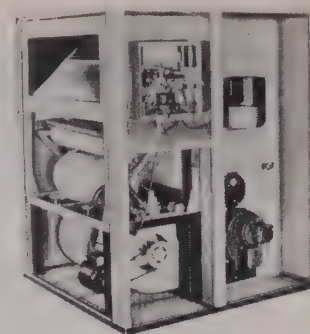
Think of it: a double picture window—interior sash—exterior sash—full height screen at each end—with Fleetlite engineered construction—all at a lower cost than you usually figure for a picture window.

When ventilation is required both side windows can be opened completely. On rainy days open the outside window on one side and the inside window on the other to provide ventilation without danger of water damage to walls or furnishings.

Send for literature and builders' prices on Fleetlite Sliding, Picture Slide and Double Hung Windows.

Fleetlite
AMERICA'S Finest WINDOW

FLEET OF AMERICA, INC., 510 New Walden Ave., Buffalo 25, N. Y.



d. Luxaire year-round air conditioning unit incorporates 5-ton capacity cooling system and 175,000 Btu input heating system in same cabinet. Cooling system has a 5 hp gas cooled, hermetic compressor, capillary tube metering device, large area fin-on staggered-tube cooling coil to reduce resistance to flow of cooling air to a minimum, water cooled shell and fin tube compressor and a modulating automatic water control valve. Unit can be fired for heating with either Luxaire gas or oil burner. Model above equipped for oil. C. A. Olsen Manufacturing Co., Elyria, Ohio.

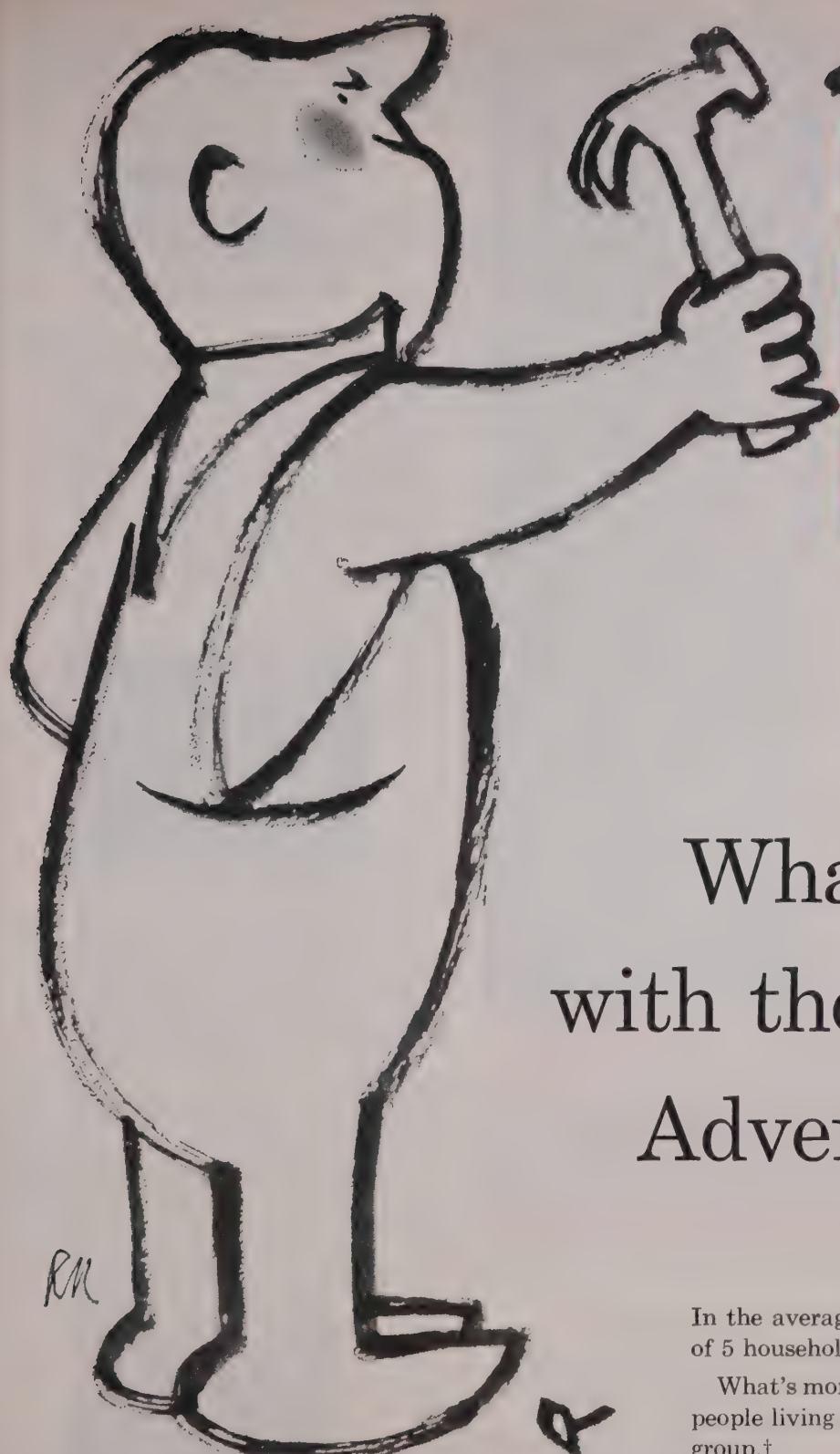


e. Outdoor thermostat senses changes in weather conditions, indicates that change to thermostat indoors via a 25-volt circuit. New control helps prevent indoor temperature from dropping with sudden outdoor changes by continuous automatic adjusting of indoor temperature in relation to temperature outside. New control will be marketed by GE's home heating and cooling department for sale with its gas and oil heating units. GE, Bloomfield, N.J.



f. Penn Type 880 thermostat "anticipates" heat and cold for close control over both functions. To install, make all connections on mounting base; then simply push onto base. Neutral plastic cover blends with room schemes, single dial heating and cooling setting simplifies operation. Change-over from heating to cooling may be manual only, automatic only, or combination manual and automatic. Prices range from \$19.70 to \$27 depending on function required. Penn Controls, Goshen, Ind.

continued on p. 230



What you can build with the sales power of Advertised-in-LIFE

In the average American community—LIFE is read in 3 out of 5 households.*

What's more, an average issue of LIFE reaches 38.2% of the people living in homes in the \$7,000-a-year-and-over income group.†

These are people who read—and respond—to the advertising pages of LIFE. Many of them are potential customers of yours.

Smart builders make a direct appeal to this pre-sold LIFE market by featuring LIFE-advertised products and materials in the homes they build because they know . . .

The great consumer acceptance of Advertised-in-LIFE products invariably helps foster acceptance of the total house.



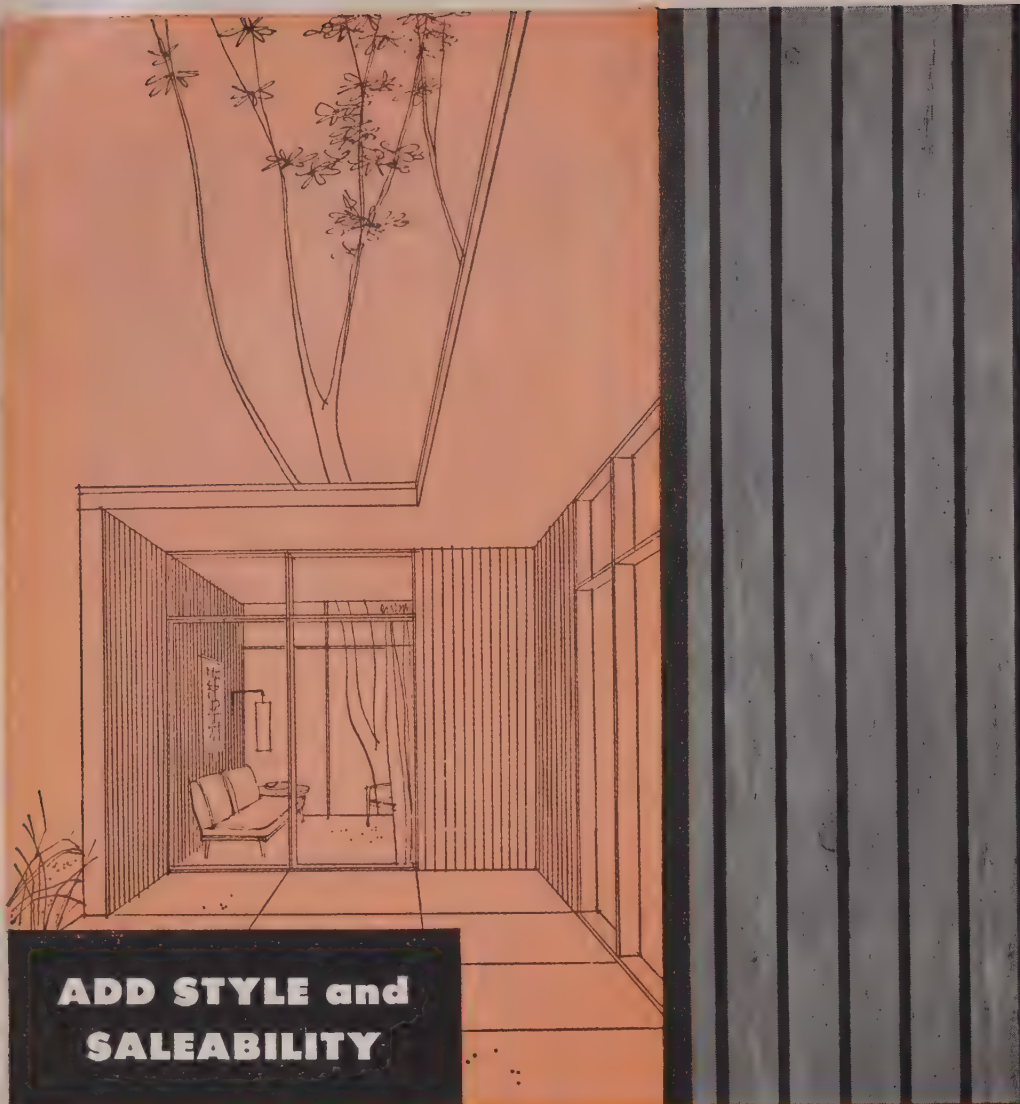
9 Rockefeller Plaza, New York 17, N.Y.

*Source: *A Study of the Household Accumulative Audience of LIFE*, by Alfred Politz Research, Inc. (A LIFE-reading household is one in which any member aged 20 or over has read one or more of 13 issues.)

†Source: *A Study of Four Media*, by Alfred Politz Research, Inc.

continued from p. 224

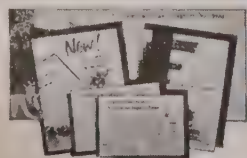
for further details, check numbered coupon, p. 298



**ADD STYLE and
SALEABILITY**

with
Texture One-Eleven®
(EXTERIOR FIR PLYWOOD)

SPECIFY TEXTURE ONE-ELEVEN to give your homes new buy-appeal. This smart "grooved" plywood combines line and texture to create dramatic pattern of highlight and shadow. Use it for siding, as combined siding-sheathing, or to accent other materials. Goes up quickly; shiplap edges neatly conceal vertical joints. Grooves are full $\frac{1}{4}$ " deep, $\frac{3}{8}$ " wide, have sharp, clean-cut edges.



**FREE PORTFOLIO OF EXTERIOR
FIR PLYWOOD DESIGNS**

File folder assembly contains design ideas, application, specification data. Write (USA only) Douglas Fir Plywood Association, Dept. HH, Tacoma 2, Washington.

**DFPA
TESTED
QUALITY**

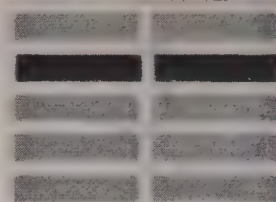
EXT-DFPA®



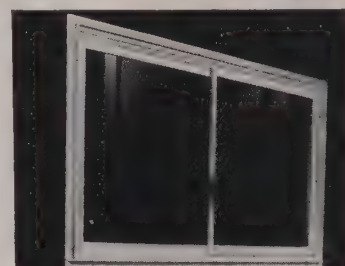
INSIST ON DFPA GRADEMARKS!

For Outdoor Use, Specify EXT-DFPA® Exterior Plywood: 1. standard Plyshield® grade for soffits, gable ends and low cost siding; 2. Overlaid panels (finest paint base for check-free finishes); 3. Texture One-Eleven® "grooved" panels.

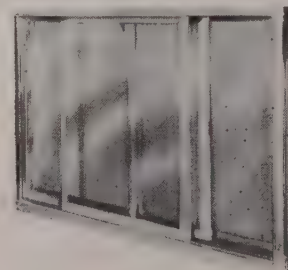
Exterior plywood of other western softwoods also available; look for this DFPA grademark.



g. Garage doors are wearing bright, new faces. The one above, by Crawford, is a single door, but pattern and color make it seem larger than it is. Delco-matic garage door operator opens, closes door by radio from moving car. Single door about \$85 installed; operator with transmitter for one car only, \$250. Crawford Garage Doors, 20263 Hoover Road, Detroit, Mich.



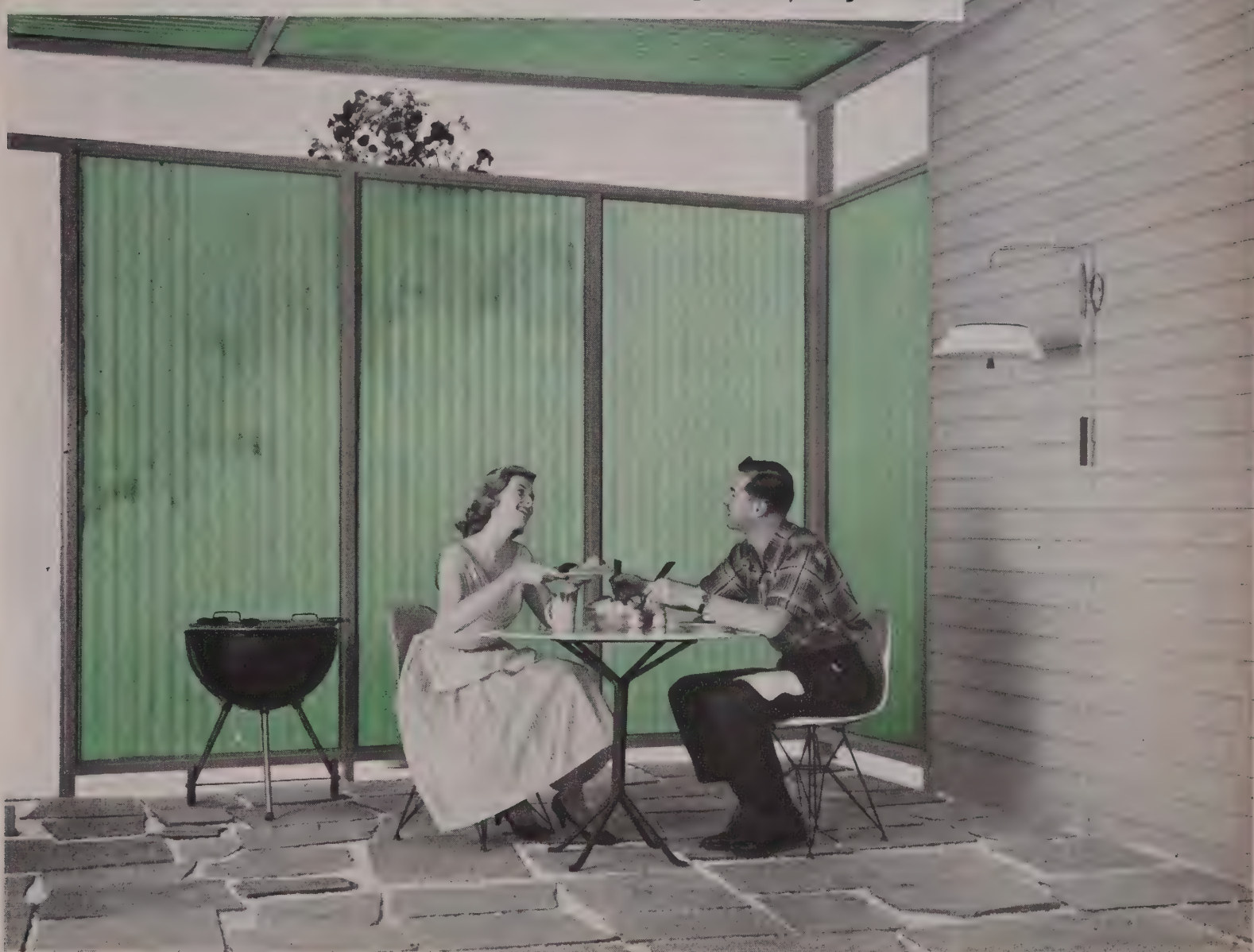
h. Rolls sliding aluminum window has nylon rollers, nylon guides in top rails, double neoprene weather seal at interlocking meeting stiles, vinyl glazing bead and new-design locks at each jamb. Window is available in a range of sizes, including picture windows with fixed center section. Window requires only one man to install; no further fitting, adjusting or painting is necessary. 3' x 2' window, \$24.83; 4' x 2', \$27.74; 8' x 2'-6", \$42.40. Horizon Door Co., Glendale 1, Calif.



i. Double sliding aluminum window combines frame, interior and exterior sash and half screen in one package, delivered ready for immediate installation. Preassembled unit installs in brick, concrete or wood frame with adjustable anchor clip attachment that does not require fitting or finishing on the job. Sash and screen are easily removable from inside, may be left in place year-round or removed for separate storage if desired. All weather sill blocks weather at four points with Koroseal lip and pile mohair weatherstripping. Fleetline, Fleet of America, Inc., 515 New Walden Ave., Buffalo 25, N.Y.

continued on p. 236

Because folks like color and light in their outdoor living rooms, they'll want



Fiberglas-reinforced paneling

It gives your homes the touch that sells!

It takes touches of color, touches of brightness to catch the buyer's eye these days. The kind you get when you spark up a home design with Fiberglas*-reinforced paneling.

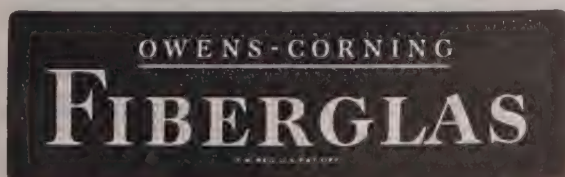
This versatile, translucent material creates a colorful modern look—gives you extra sales appeal at little cost! Fiberglas-reinforced paneling turns patios, carports, entranceways, room dividers, bathtub enclosures—into eye-catching, sales-making highlights!

You can include it in this year's models, because no extensive changes

in your present designs are needed. You handle it just about the way you'd handle any other building material. It's strong, weatherproof, shatterproof, easy to cut, nail, shape—available in flat or corrugated sheets, in a wide range of colors. You can select high light transmission panels for northern exposures—or low light transmission panels for sunny exposures. And it *does* add a touch that sells!

For full details, write: Owens-Corning Fiberglas Corporation, Department 67-C, 598 Madison Ave., New York 22, N.Y.

Owens-Corning Fiberglas does not manufacture this paneling—it supplies the Fiberglas reinforcement to panel manufacturers.



*T. M. Reg. O-C-P Corp.

continued from p. 230

For further details, check numbered coupon, p. 298

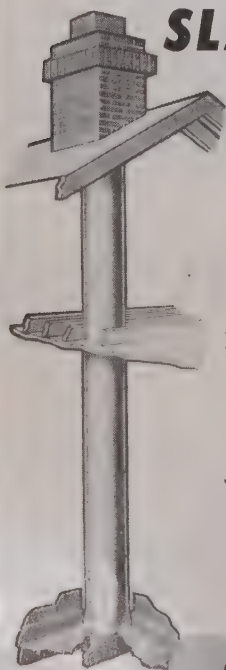
PUT OUR EXPERIENCE behind YOUR home AIR CONDITIONING



Many builders, through lack of personal experience with year-around air conditioning, hesitate to put it in their homes—but *not those who specify Majestic*. They know the full weight of Majestic's many years of "home comfort" experience stands firmly behind their ultra-modern 1956 units. In remodeling or in new construction, the contractor expects and gets all the benefits of Majestic's research and engineering.

Majestic 1956 Line IS COMPLETE

Whatever system you want—2, 3, or 5 ton self-contained water-cooled units or remote air-cooled models, in matching twin units or for add-on installations—Majestic has it in the 1956 line. For only a very few dollars, a Majestic Furnace installation can be equipped with a remote-system evaporator cabinet, ready for "the works" whenever the home owner decides on all-season air conditioning.



SLASH Chimney and Fireplace COSTS

Majestic also makes the revolutionary metal Thulman Chimney that *cuts erection costs* to a minimum, and Thulman Fireplace, the complete fireplace and chimney that *needs no masonry*. Both have simulated red-brick top housings. Both are U.L.-listed for zero clearance installation in homes to two-stories high, with or without basement.

Call your nearest
Majestic Dealer,
or write today

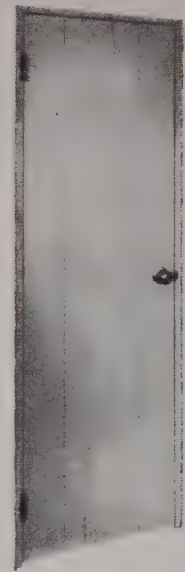


The

Majestic Co., Inc.

416 Erie Street

Huntington, Indiana



j. Steel door presents clean line, modern look. Frames are available in both 2" flush trim or 1 3/4" molded trim, knocked down or all welded. Doors and frames are prepared for standard hardware, install easily since planing and fitting are unnecessary. In addition to model shown above, glass panels, vision lights and louvers are available, plus a baked-on prime finish or a choice of colors or wood grain finish. Door, exclusive of frame, hardware, sells for about \$20. The Steelcraft Mfg. Co., Rossmyrne, Ohio.



k. Closur-Dor fits openings up to 32" x 80". Floor track is not used and installation tools are simple. Package includes overhead steel track with nylon gliders, steel leading edge and security latch. Closur-Dor folds compactly back to eliminate space needed for swing doors, partitions storage or closet space where you need it throughout the house. Vinyl plastic doors clean easily, just wipe off with a damp cloth. \$8.95. Closures, Inc., 533 E. Forest, Detroit 1, Mich.

continued on p. 242

Give their Lovely Lawn and Garden the *Permanent* Protection of **CAST IRON SOIL PIPE**

The big reason why this happy couple built this charming home was to have a large yard and garden. They yearned to grow things . . . trees, shrubs and flowers! They wanted an outdoor terrace to enjoy in the evenings and entertain friends . . . and a barbecue pit where they could cook juicy steaks on a charcoal fire. It's been several years since they moved in . . . and are they delighted with the growing beauty of their attractive grounds!

This couple has the satisfying knowledge that the grounds, on which they've lavished so much loving care, need never be torn up to replace impermanent or root clogged pipe. Their architect specified *Cast Iron Pipe*—the *only* pipe that has behind it a truly long-time service record. Roots cannot penetrate it, heavy loads will not crush it. It is made and laid to outlast the home.

If your clients—like this couple—cherish outdoor living, give their property the same permanent protection. Specify Cast Iron Soil Pipe from street to roof for freedom from trouble and long run economy.



WOODWARD IRON COMPANY
WOODWARD, ALABAMA

Our Company does not manufacture pipe, but produces quality pig iron from which pipe is made by many of the nation's leading manufacturers.

continued from p. 236

for further details, check numbered coupon, p. 295

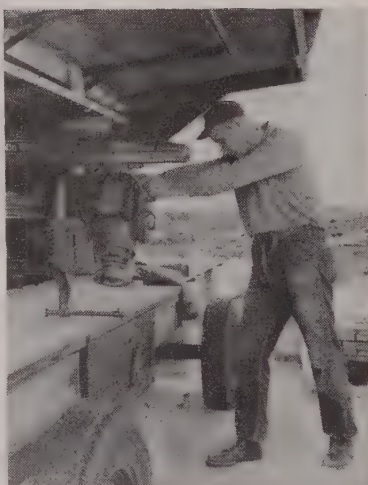
Here's where high-capacity ONAN ELECTRIC PLANTS keep projects moving...save money



Supply power for your own crews, sub-contractors and big assembly-line equipment

To speed up overall progress on project building, many contractors keep one or more mobile, high-capacity Onan Electric Plants on the job site . . . in addition to smaller units. The Onan 10,000-watt, Model 10CW on the project above, has dual utility. It is used as a "central" source of power for several crews. In the photograph, the 10CW is shown parked at what will be an intersection. While carpenters are using its power in laying the sub-floor of one house, it also supplies power for three different sub-contractors in three other partially-finished homes. It also supplies current for the 5 H.P. motor on the big assembly-line saw.

The Onan 10CW combines high output with relatively light weight . . . runs smoothly and quietly. Like all Onan mobile and portable electric plants it is completely Onan-built . . . with an Onan 4-cycle, 2-cylinder, air-cooled gasoline engine direct-connected to an Onan all-climate generator. Trailer-mounted . . . with all-steel housing (both available as accessories) it can be taken anywhere, in any weather. Onan Electric Plants speed completions . . . cut your costs.



ASSEMBLY-LINE POWER

Driven from an Onan 10KW unit, this 5 H.P. saw is being used to gang-cut and rout rafters. Even where highline power is at the site, it is often easier to plug-in to an Onan plant than string long wires.

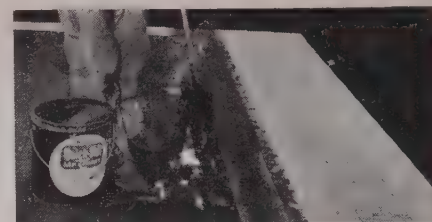
Portable and mobile electric plants . . . 500 to 50,000 watts

Write for complete folder on gasoline and Diesel models

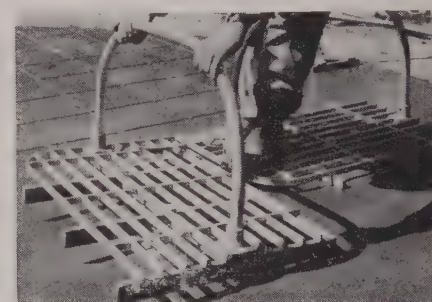


D.W. ONAN & SONS INC.

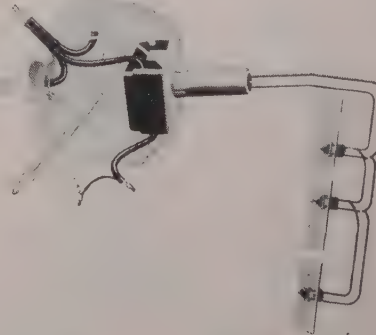
3196 University Ave. S.E., Minneapolis 14, Minnesota



l. Ranch Roof is a rolled-on roofing material which recently received FHA approval for use on roof slopes as low as 2" in 12" with one layer of No. 15 asphalt felt laid dry. Among its features: built-up roof protection, good wind resistance, and a strong, tight seal against water backup. Ranch Roof has shingle weight and construction, gives double coverage over entire roof. Strips are 18" w., 38' l., available in a range of colors and blends and "weathered" designs. Bird & Son, Inc., East Walpole, Mass.



m. Tool shown above applies ornamental patterns in concrete right on the job. Lightweight cast aluminum alloy tools can create brick or tile patterns in colored concrete in about the time it takes to lay gray slab and, manufacturer adds, at only a fraction of the cost of conventional materials. Process can be used for any flat surface such as patios, interior floors, steps and walks. Tools are leased to contractors from \$1 per day. Ornamented Concrete, Inc., P.O. Box 3996, Carmel, Calif.



n. Remote control switching is exemplified in Remcom—a low voltage relay with its own miniature built-in transformer. Each circuit is a separate self-contained unit. To install, contractor need only fit unit into outlet box, match three wires of unit to three wires of switch. No. 18 bell wire takes the place of BX cable and only six volts are needed to activate outlet. Remote control relay, about \$4.20; low voltage switch, 45¢; switch plate, 30¢. Remcom, Pyramid Instrument Corp., Lynbrook, Long Island, N.Y.

continued on p. 248

HOMES

AIR CONDITIONED



Carrier air-cooled systems to be standard equipment in all Country Clubbers

The largest contract ever awarded for residential air conditioning was signed in January. It called for the installation of Carrier Weathermaker central air conditioning systems in 702 homes of Levittown, Pa., the nation's largest planned community. These new Carrier units will bring summer comfort to these three-bedroom, two-bath expandable homes that will sell for \$18,990. They will be known as Country Clubber-Weathermaker Homes.

William J. Levitt, president of Levitt & Sons, Inc., the builders, hopes that, in the near future, all new Levitt homes will have central air conditioning.

The selection of Carrier air conditioning for Levittown homes by America's largest home builder is more than a salute to a fine product. It is also significant recognition of the greater salability and long-term value that complete air conditioning adds to new homes.

Like to know more about Carrier Weathermakers . . . there's a model for every size home. Get in touch with your Carrier dealer—he's listed in the classified pages of your telephone directory. Or write to Carrier Corporation, Syracuse, New York.



continued from p. 242

for further details, check numbered coupon, p. 268



LONG LENGTHS are assembled on the ground, lowered into trench, and tapped into position to make a root-proof, watertight joint. Easy to handle, quickly installed. Only Perma-Line is available in 5, 8, and 10-foot lengths.

L-o-n-g lengths make **PERMA-LINE**[®] the quickest sewer pipe to install

Perma-Line is the only fibre pipe available in 5, 8, and 10-foot lengths. It goes in fast, resists ground heaving; tapered joints are root-proof and leakproof, and the pipe lasts for a lifetime. It can't rust, shatter, crack, or leak. It's strong, light, tough. In solid pipe for sewers and drains; perforated for field tiling, footings, and septic tank beds. Full line of couplings, fittings, bends, and adapters to connect to soil or sewer pipe. Many uses, in homes, farms, industry.



Write L-M, or mail the coupon. ▶

PERMA-LINE[®] Pipe



217A

LINE MATERIAL COMPANY
(a McGraw Electric Company Division)

LINE MATERIAL CO. HH-45
Milwaukee 1, Wisconsin

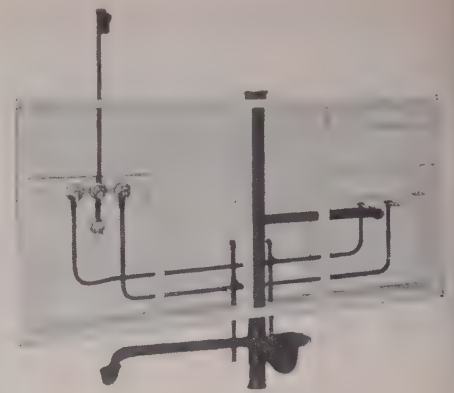
Send full information about Perma-Line Pipe and name of nearest distributor.

Name _____

Company _____

Address _____

City _____ State _____



o. Prefabricated plumbing wall of copper tubing is installed simply by setting into place. Wall is shipped completely assembled in white fir framing and forms bathroom wall partition. Installation is so effortless that plastering can be done immediately. APSCO walls are shipped complete in a variety of bathroom floor plans to fit almost any plumbing layout in a home of slab, crawl space or basement type construction. Walls are priced with 2-valve tub filler, standard galvanized stack. No. 4 wall with full bath, tub, closet and lavatory all on one wall and sink back-to-back with bathroom, \$134. Shower, optional stack extra. APSCO, 10th St. Baer Field, Ft. Wayne.



p. Plastic panels for shower doors and tub enclosures are both practical and decorative. Panels are either translucent or Opalite (to give a milk glass effect), are custom styled to preference and bath design. Those above seem to bring the outdoors in, with lacy fronds and leaf designs in bold relief. The panels are available in several weights at an average cost of \$6.50 per sq. ft. to architects, designers, and estimates on jobs are available, including advice on proper weight plastic from Puget Sound Designs, Kneedler-Fauchere, 451-461 Jackson St., San Francisco, Calif.

continued on p. 248

Sunnyday boilers 20 YEARS



SUNNYDAY 15



SUNNYDAY SENIOR 16



**SUNNYDAY 20
"ALL-PURPOSE"**

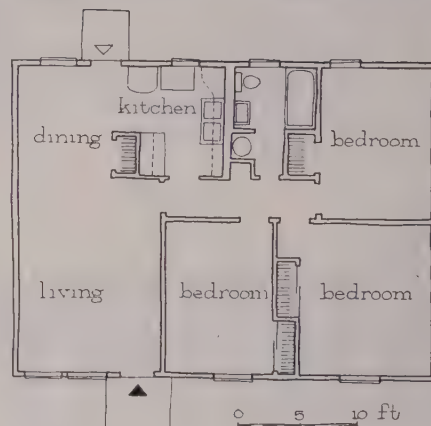
Newest, most efficient residential boiler. Easy to install. Factory assembled, wired. Gas or oil fired. Flush or extended jacket.

Famous downdraft design gives the greatest output of heat. Big fuel savings. Outperforms any boiler in its class.

For oil, gas or coal. New tailored combustion system improves efficiency—reduces necessary chimney height.

continued from p. 248

for further details, check numbered coupon, p. 298



q. American Houses "Citation" (see above), a five-room ranch-type house, is one of two new designs the company put on the market in January. Among its features: a kitchen easily accessible to both dining and living areas, a private bedroom wing and a third bedroom which might convert into family room, according to home owner's needs (see plan). Vaulted ceiling visually opens up the living areas within a 872-sq. ft. total. Package price is approximately \$2,300. Optionals include carport, custom flooring, a Youngstown kitchen. "Homestead" (below) is a split-level contemporary version of the traditional New England salt box, in reverse. A three bedroom, tri-level of three variations, company says house is flexible enough for almost any kind of hillside lot. "Homestead" model shown recently in Washington, D. C. featured a full dining room, space in kitchen for meals, third bedroom at living level, fully equipped kitchen, living room with cathedral ceiling of exposed redwood beams, finished base-



ment and recreation room, laundry area, insulated side walls, landscaped lot. Package price from about \$4,000. Optionals include those mentioned for "Citation." Both houses are planned to give maximum space, living convenience and privacy. Contrast of the two designs points up the fact that prefabricators today, like other segments of the home building industry, are offering exteriors which follow no strict rule of contemporary design. American Houses, Inc., 165 West 46th Street, New York.

continued on p. 260



"WE USE THIS LOW-COST COOLING TO CLOSE THE SALE!"

says Builder L. E. Hoppes
Hoppes Development Company
Springfield, Ohio

Mr. Hoppes writes: "You'll be pleased to hear that your R & M 'Package' Attic Fan has done more to close sales of our homes than any other 'extra' we've seen. The mere mention of complete built-in cooling is impressive. And it's a real pleasure to turn on the fan and get such an enthusiastic reaction every time. It really does cool every room in the house! We've installed these fans in 100 homes thus far, and have ordered 100 more."

Build this sales talk into your homes! Promise cool sleeping, cool living, for as little as \$145.00 list, complete with automatic ceiling shutter! Requires only 18" attic clearance; fits narrow hallways. 5,000 to 16,000 CFM. Available with or without automatic ceiling shutter. Fan guaranteed 5 years; motor and shutter, 1 year. Mail the coupon for our reliable guide to better comfort cooling!

ROBBINS & MYERS

"Package"

attic fans

free
booklet!

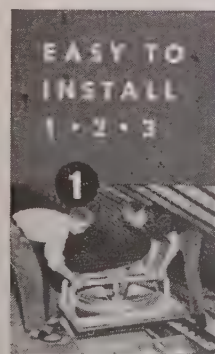
ROBBINS & MYERS, INC., Fan Division, HH-36
387 S. Front St., Memphis 2, Tenn.

Please send me your booklet, "R & M Comfort Cooling and Ventilating A. I. A. File No. 30-D-I."

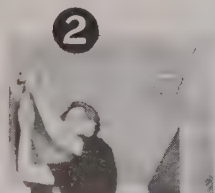
Name _____

Address _____

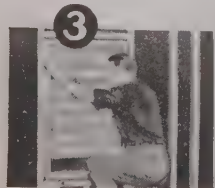
City _____ Zone _____ State _____



Fan and shutter arrive set up. Simply place fan over framed ceiling opening. Rubber cushion makes it self-sealing!



Complete automatic shutter unit screws to ceiling opening frame; flange forms trim. No finishing needed.



Ready-made attic louvers can be installed quickly by one man. Sizes for each of various-sized fans.

Steel makes the ideal window. It can't warp, swell, shrink or rot. Steel is quick to install and to adjust. And, you simply paint steel windows to match both interior and exterior colors. Paint them right along with walls and trim. All types of Truscon Steel Windows come to you in prime condition for painting. Truscon Steel Double-Hung Windows are electrogalvanized, Bonderized and prime coat painted. Stainless steel weatherstripping and motor type spring balances are built in. Now available in window sizes up to 6' 5½" high and 4' wide. Truscon Steel Casements and Ranch Windows offer the same "paint to match" features. All immediately available from Truscon warehouses all over the country. See your dealer or Sweet's File for more facts.



Now! Republic is introducing "Harmony Hues." Three lovely colors at no extra cost. Color style your kitchens in Tempo Turquoise, Largo Yellow, Prelude Pink—colors carefully selected to harmonize with all major appliances... whether you select them or your customers buy them later. In contemporary or traditional homes, "Harmony Hues" were created to go well with today's most fashionable decorating materials. Republic Steel Kitchens, more than ever, give you and your buyers *most for your money*. More than ever you can create customized kitchens using standard Republic cabinets. Put this dramatic, wanted feature in your homes at not one penny more! See your distributor for quick-to-the-site delivery.

Now! Truscon can offer interior steel doors finish-painted in your choice of any one of 26 contemporary colors! If you're building as few as ten houses, you can take advantage of this color feature available in lots of 200 or more swing or slide doors. Truscon Steel Doors save you dollars on framing, fitting, hanging and finishing. They're quick and easy to install. No cutting, planing, sanding needed. Now, finish-painted in color means more savings. They refuse to stick or bind because steel can't swell or warp. Truscon Interior Swing Doors are sound-deadened. Sliding Doors glide noiselessly on nylon rollers. Both types are flush, trim, modern. Get the Truscon color story from your nearest Truscon District Sales Office or send coupon below:



STEEL

and Steel Products

REPUBLIC STEEL CORPORATION

3122 East 45th Street, Cleveland 27, Ohio

Yes, I'm interested in color styling. Send me more information describing:

- | | |
|--|---|
| <input type="checkbox"/> Truscon® Steel Windows | <input type="checkbox"/> Truscon Interior Steel Doors |
| <input type="checkbox"/> Republic Steel Kitchens | <input type="checkbox"/> All three |

Name _____ Title _____

Firm _____

Address _____

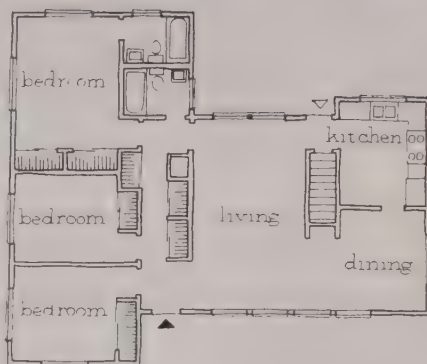
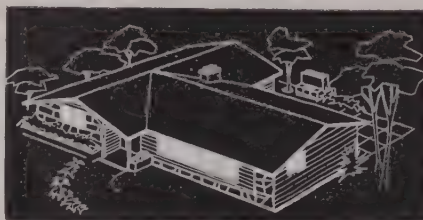
City _____ Zone _____ State _____

K-9684

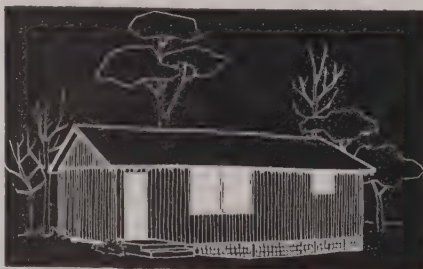
New Products

continued from p. 254

for further details, check numbered coupon, p. 298

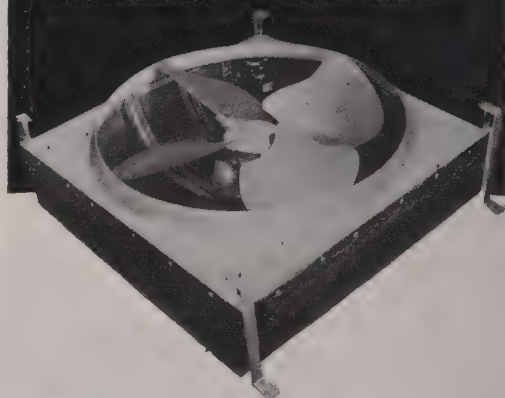


r. "Clairwood" (see model, plan above) contains three bedrooms, two full baths, L-shaped kitchen and built-in china closet, and a 19'-8" x 13' living room with both front and rear exposures. Patio might tuck in sheltered area to rear of living room. T-shaped plan provides for three separate areas for sleeping, living, and dining and food preparation centers. Architect for house was Lon H. Purcell. Base package cost is about \$5,500. Optionals: garage, breezeway, carport. Pease Woodwork Co., Pease Homes Div., Hamilton, Ohio.



s. Prefabricated vacation cottage can be erected in one day as sections are unloaded from truck. Cottage has louver windows, Texture III waterproof plywood exterior siding, can be used year-round by adding interior wallboard. Doors, windows and partition sections can be arranged to suit individual wants. A new dealer financing plan, introduced by the company, enables each dealer to build a display model during winter for an "Open House" promotion in the spring. In most cases, dealers taking advantage of the plan would have 100% financing on actual cost of constructing display model. Promotional, advertisements and publicity will be placed at local level in the immediate trading area covered by a particular dealer. Package price for 32x20 \$1,646 without floors, with \$2,066. Factory-Built Homes, Inc., McDonough, N.Y.

Added
luxury!
in
EVERY Home!



Chelsea

Deluxe

ATTIC FANS

Every home — new or remodelled — needs the added luxury of complete summer comfort and healthful year-round ventilation — with a Chelsea deluxe attic fan. Low cost Chelsea attic fans are easy to install... 26 different models for wall and ceiling installation meet every home ventilating requirement. Plan today to "comfort condition" your homes, cut cooling costs — with Chelsea!

**CUT THE HIGH COST
OF COMPLETE HOME COOLING!**

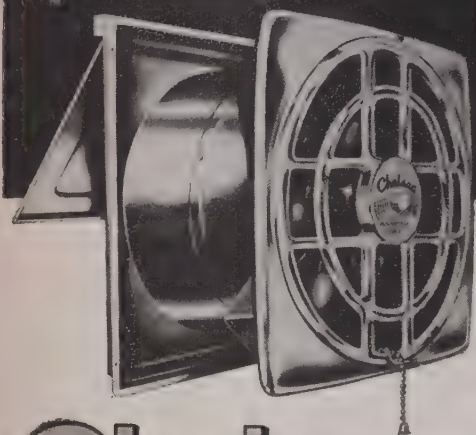
Reduce complete home air conditioning costs! When hot, stagnant air is flushed from attic spaces, the size of the required air conditioning system is reduced by up to 40%! It's the economical combination for efficient home air conditioning — use a Chelsea deluxe attic fan. An attic fan will ventilate the entire house too! It draws fresh air into every room... expels hot, stale air through attic vents — changes all the air in the house every minute!



WRITE... for information, or see
your nearest Chelsea distributor.

CHELSEA FAN & BLOWER CO., INC.
PLAINFIELD, NEW JERSEY

NEW!



Chelsea

Power Vent

KITCHEN FANS

Complete line... for wall or ceiling... and packed with sales and installation features! 8" and 10" fans, for pull chain or wall switch operation. Baked white enamel or "super-chrome" grille.

NEW...INSTALLATION FEATURES!

Cut installation time and expense by 50%! "All-size" sleeve fits all walls from 4" to 14". New mounting tabs... adjustable mounting straps simplify installation — eliminate carpentry work.

NEW...OPERATING FEATURES!

Counterbalanced shutter stops back drafts and flutter. One-piece motor support for quiet operation. All-weather hood keeps outside walls clean — operates with chain or wall switch.

NEW...LOW PRICES!

Priced low — within the reach of any project! Precision built and guaranteed for 5 years.



WRITE... for information, or see
your nearest Chelsea distributor.

CHELSEA FAN & BLOWER CO., INC.
PLAINFIELD, NEW JERSEY

continued on p. 266



**"I know
the windows
helped clinch
the sale..."**

REYNOLDS ALUMINUM WINDOWS



The builder quoted here is one of the many who acclaim Reynolds Casement Window as "best on the market". And Reynolds Traverse (sliding) Window is fast climbing toward comparable rank, while a sensational new Reynolds Awning Window will vie with them both for honors. An improved Double-Hung Window, also Basement and Utility Windows complete the line.

What home buyers see first in these windows is attractive lines, high "satinized" finish, smooth operation. And your expert inspection will reveal many superior design features. Casements have flash-welded corners, watertight lip, continuous drip rail at transom bar. Traverse windows have positive locking, neoprene weatherstripping and an exclusive double sill. For complete catalog, plus details of the new Awning Window, write to...

Reynolds Metals Company,
Window Division, 2019 South Ninth Street,
Louisville 1, Kentucky.



See "FRONTIER," Reynolds great dramatic series, Sundays, NBC-TV Network.

ALUMINUM



"Better Living Through

ELECTROMODE

All-Electric Heating"

Division Of
COMMERCIAL CONTROLS CORPORATION



IMMEDIATE

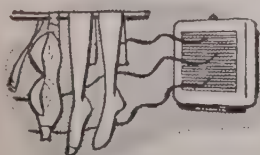
Warmth..when you want it!



FOR BABY



FOR DAD



FOR DRYING LINGERIE
and
101 OTHER USES

With a flip of the switch the Electromode Wall-Type Bathroom Heater gives you an abundant blanket of clean . . . odorless . . . all-electric heat. Wonderful for the nursery. Bathe your pint-sized Prince in King-sized warmth. Dad will go for it in a big way too! There is no longer any need for the "Lord of the Castle" to dread shaving or bathing in a chilly bathroom. Watch Dad's disposition improve. Literally 101 other uses; drying lingerie . . . hair . . . for any small room . . . and absolutely the answer for hard to heat areas.

Over 300,000 homes are now heated completely by electricity. For over twenty-five years Electromode has been producing all-electric heating systems and equipment to satisfy either supplemental or complete heating needs . . . FOR HOME . . . FOR FARM . . . AND FOR INDUSTRY.

Electromode Heaters are equipped with a sealed-in cast-aluminum heating element. Tops in safety . . . efficiency . . . and economy.

► Send for free . . . colorful literature on Electromode's complete line.

"WORLDS LEADER IN ALL-ELECTRIC HEAT SINCE 1929"

ELECTROMODE

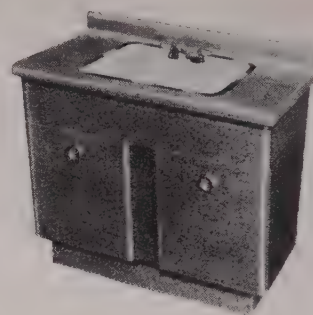
Division Of
COMMERCIAL CONTROLS CORPORATION

Dept. HH 36
45 CROUCH STREET
ROCHESTER 3, N. Y.

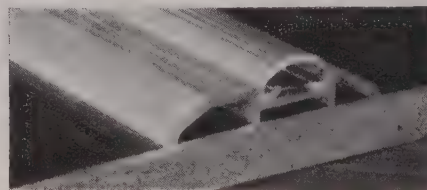
New Products

continued from p. 260

for further details, check numbered coupon, p. 298



t. Bathroom vanity is one of several new models. Stateline "Krown" is a 36" unit, completely post-formed, with rolled front edge and coved back. Double storage bins, surface tops, give extra space. Shown here in smooth tweed-textured finish, all models are available in seven colors, a range of good-looking styles. Unit shown here, complete with basin and faucet, costs about \$155.70. Glissade, Liebman Bathroom Specialties, Inc., 769 Chauncey St., Brooklyn 7, N.Y.



u. Aluminum threshold has a tough vinyl insert that is easily replaced when necessary—right on the job. AP threshold is 3 3/4" wide over-all, 1/2" high to top of threshold with over-all height of 3/4" including vinyl, and 2 1/4" wide across top. 1/8" bevel at bottom of door depresses vinyl insert enough to make a snug, positive contact that keeps out drafts, dust, etc. Threshold costs approximately \$1.40 per foot complete; cost for an average 3' doorway is about \$4.20. Macklanburg-Duncan Company, Oklahoma City, Okla.



v. Stainless steel wall tile makes a bright, gleaming surface that cleans easily, can be used throughout a house—on exterior walls, to highlight a patio wall, over a stove, on kitchen wall surfaces, in a shower stall, as utility and decorative surfaces within the bathroom. Trim tile, attached to wall with mastic, costs approximately \$1.65 per sq. ft. Field tile is about \$1.40 per sq. ft. Vikon Tile Corporation, Washington, N.J.

continued on p. 272

HOUSE & HOME

2 *easy-to-apply latex paints speed work schedules . . . offer a bonus in beauty and easy upkeep*

No wonder latex paints are first in the finish of America's finest homes! Architects and builders benefit by their ease of application, fast drying and quick clean-up . . . which add up to important time and labor savings and keep work schedules up-to-the-minute. Home buyers want the extra beauty, durability and easy upkeep that go with a latex-painted home. Switch to latex paints for a profit-making performance every time.

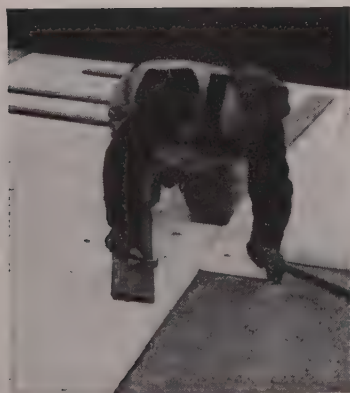
Latex paints dry to a tough, scrubbable film that resists acids, alkalies and greases.



House & Garden chose latex paints for the 1955 House of Ideas.



As a perimeter insulation, Styrofoam is used both vertically and horizontally.



Styrofoam insulation tops the roof decks of flat, shed or butterfly roofs.

3 *lifetime Styrofoam insulation lowers installation costs . . . boosts efficiency*

Now you can add a lifetime of comfort in every home you insulate . . . with Styrofoam® (a Dow plastic foam). Styrofoam won its fame in the low-temperature insulation field and is now available for home construction, bringing dividends in lower installation costs and reduced fuel bills. Styrofoam is clean, easy to handle, feather light, yet structurally strong. It lasts a lifetime because it resists moisture, rot, mold and deterioration. Vermin won't touch it. Styrofoam is the big news in home insulation . . . make it pay off for you! THE DOW CHEMICAL COMPANY, Dept. PL-418K Midland, Michigan.



you can depend on **DOW PLASTICS**





the most versatile,
practical and economical
JOIST HANGER
ever developed —

TECO
Trip-L-Grip
FRAMING ANCHORS

Eliminate heavy strap
hangers
notching
shimming
Add strength and rigidity.

One size fits joists from
2" x 4" to 2" x 12".

TIMBER ENGINEERING COMPANY HH-562
1319 18th STREET, N. W.
WASHINGTON 6, D. C.

Please send FREE booklet, "Aids for Better
Homes and Other Wood Construction," showing
details on how and where to use Teco Trip-L-Grip
Framing Anchors for stronger wood framing.

NAME

FIRM

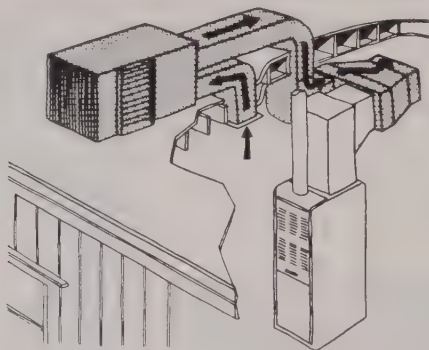
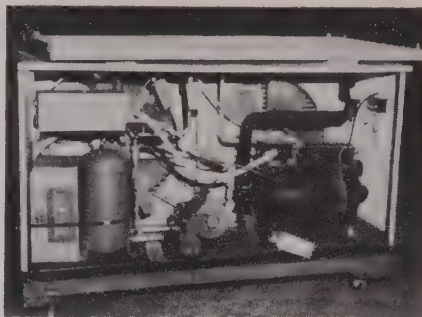
STREET

CITY, ZONE, STATE

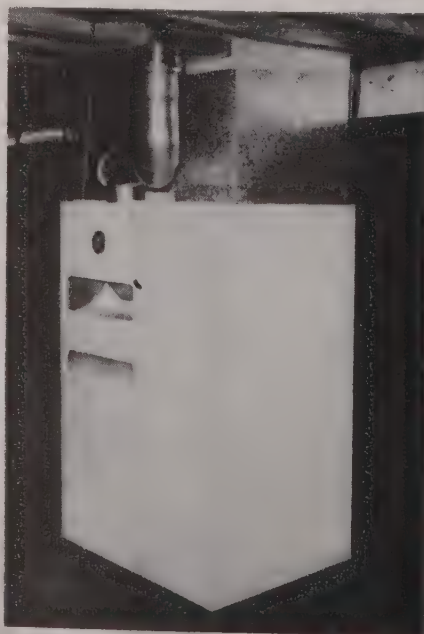
New Products

continued from p. 266

for further details, check numbered coupon, p. 298



w. New air-cooled compressor-con-
denser unit for remote air conditioning
is housed in a cabinet outside the house
and refrigerant is pumped to evaporator
unit, mounted on or near furnace. Lennox
Condenser fan is claimed to move 25%
more air at 10% less electrical cost than
a comparable centrifugal blower. Photo
above shows installation on flat roof. Duct-work extends down into automatic
damper on plenum of an up-flow warm air
furnace. Cooling system uses heating duct-
work to distribute cooled air. Automatic
damper permits quick change to cooling or
heating. Exhaust side of cabinet has full
panel of rain-proof louvers. "Stowaway"
unit might also be installed on ground
outside house, in carport, in furred-down
ceiling near outer wall, etc. Lennox In-
dustries, Inc., Marshalltown, Iowa.



x. Conco air-refiner's cooling unit is
efficient, precise air-to-air, requiring no

continued on p. 278

AMWELD®

The door to
**GREATER
PROFIT!**

HOMES
MOTELS
SCHOOLS
APARTMENTS
OFFICE BUILDINGS

FROM
THE LINE
DESIGNED
WITH THE
BUILDER
IN MIND

TRY THIS FORMULA FOR PROFIT EXTRAS...

Amweld's Low Original Cost + Easy
Installation + Minimum Maintenance
Call Backs + Customer Satisfaction x
Any Type of Construction = The Best
Door Buy You Can Make

No matter what's on your drawing board
to build or bid — homes, motels, commer-
cial or office buildings, schools or apart-
ments, the Amweld line of steel doors,
frames and folding or sliding closet units
should be part of those plans. Amweld
offers a complete line of steel doors, Inter-
Lok frames, in all standard sizes, for any
type of construction. Build profit into your
construction jobs by specifying Amweld.



THE AMERICAN WELDING & MFG. CO.
330 DIETZ ROAD • WARREN, OHIO

DOORS BY AMWELD®

Fire Door	Air Condition- ing Door	1 3/4" Flush Door	1 3/4" Flush Door
1 3/4" Inter-Lok Frame	1 3/4" Inter-Lok Frame	KD Sliding Closet Doors	Folding Doors

switched to YALE*

Behind this sweeping Levitt move was the recognition of YALE keyed-alike systems as a powerful merchandising feature... one that would satisfy growing buyer demand for single key convenience. *Four more reasons why Levitt switched to YALE:* (1) the superior features of YALE Series 5300 Cylindrical locksets and Series 5200 Tubular locksets — when used in combination — offer exterior security and interior utility at lowest cost; (2) the exceptional eye-appeal of every lockset in the YALE line — an extra advantage when selling to the style-conscious home buyer of today; (3) the fast, simple installation of all YALE hardware — fine for keeping building costs down; (4) the fact that the YALE keyed-alike feature applies even to overhead garage doors. And, of course, the YALE name — the most famous and respected name in lock hardware.

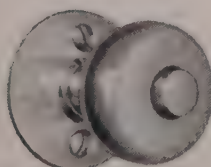
**Yale gives builders what buyers want
and at low cost!**

In today's hotly competitive home-building field, the home buyer is king. He wants as much style, quality and convenience as he can get — at the best price. When it comes to hardware, nothing satisfies the home buyer like YALE — and the builder is the gainer. Would you like full information on why the Levitts and other smart builders are specifying YALE? Write The Yale & Towne Mfg. Co., Lock & Hardware Division, White Plains, N. Y. Below are the YALE locks selected by Levitt & Sons for Levittown, Pa.:

*YALE—REG. U. S. PAT. OFF.

YALE & TOWNE

5214 BEDROOM LOCKSET



Locking mechanism controlled by pushbutton from the inside. Emergency key opens lock from outside. Quarter turn on inside knob or closing door releases pushbutton locking.

3

5215 BATHROOM LOCKSET



Pushbutton locks door from inside. Quarter turn on inside knob unlocks the outside. Chrome-plated knob inside. Brass knob outside.

4

361 GARAGE DOOR LOCK

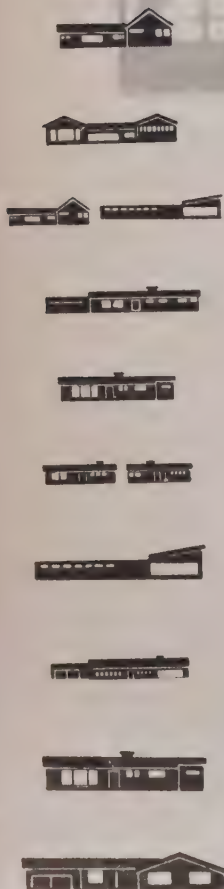
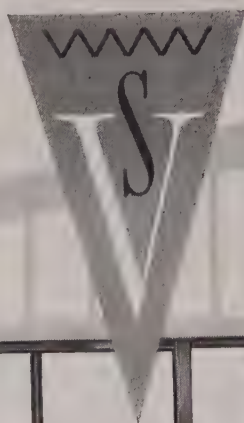


For vertical or horizontal application on overhead garage doors. Bolt operated by key outside, knob inside. Bolt held back by knob inside.

5

SUN VALLEY JR's LOW COST

*Can Put Aluminum Sliding
Glass Doors In Every Home
You BUILD!*



Sun Valley Jr. is the first really low priced aluminum sliding glass door with positive structural design and all the "talked-about-features" of higher priced doors. Built specifically for economy budgets and multiple home installations... making it practical for every home you build.

Slim and trim rugged extruded aluminum provides a greater expanse of glass creating Sun Valley's "Outward Vision" that transforms outdoor splendor into comfortable indoor living.

The Door to Eye

Sun Valley Jr. comes K.D. for easy glazing on the bench or job. Installation is quick... saving time and reducing costs. Sun Valley's national distribution network assures you prompt and effective service... eliminating costly delays.

Jr. doors are 6'-8 1/4" high... 2 panel for door width openings of 6', 8', 10' and 12'. Accommodates 3/16" and 7/32" crystal or 1/4" plate.

Plus...

- ... fully weatherstripped with extruded neoprene and mohair pile
- ... glides silently, effortlessly on sealed ball bearing rollers
- ... satin finish on all doors. (Extra charge if aluminizing required.)

Quantity Discounts Available

Make Sun Valley Jr. aluminum sliding glass doors a sales opener for your homes. Write now for complete product and cost information... and name of nearest distributor.

SUN VALLEY INDUSTRIES INC.

DEPT. 104

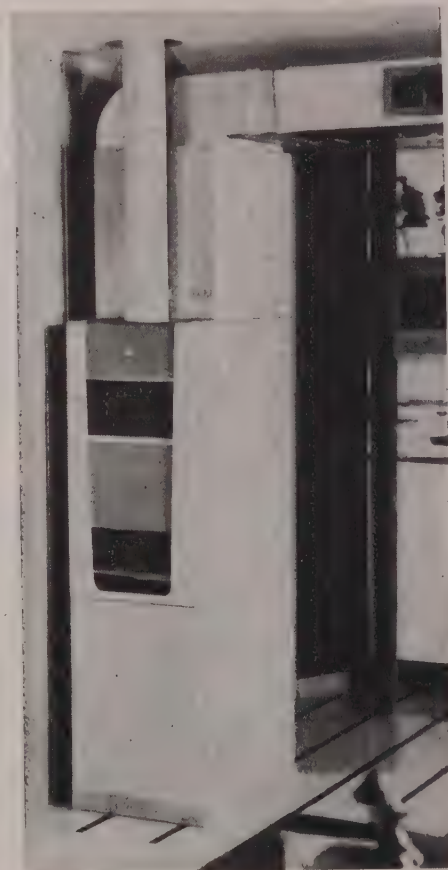
8354 SAN FERNANDO ROAD, SUN VALLEY, CALIFORNIA

New Products

continued from p. 272

for further details, check numbered coupon, p. 298

water. A new controlled face and bypass system assures unvarying temperature throughout the house all year-round. Manufacturer says design provides volume of air flow—even in spring and fall, required for uniform air distribution. An additional feature is the electrically controlled humidistats which, according to manufacturer, hold humidity constant within previously unattainable tolerances. Dirt, pollen, smoke and other common contaminants are removed from the air by an electro-static filter to give more freshness and purity. Mark IV can usually be installed for about \$50 more than cost of conventional heating-cooling installation. Conco Engineering Works, Mendota, Ill.



y. Carrier's Winter Weathermaker

furnace adapts to year-round air conditioning simply by removing front cover on Weathermaker plenum and slipping in cooling and dehumidifying coil, and connecting it to an air-cooled condensing unit outside house or in garage. Company estimates this conversion saves an average of \$150 in adding complete air conditioning in typical house. The "add-on" plenum feature eliminates sheet metal plenum constructed on usual furnace. New vertical Winter Weathermaker is 4 1/2' high, 28" deep, width varies from little more than 2 1/2' down to 14", which makes furnace easy to install in alcove, closet, basement or utility room without giving up precious floor space. Capacities range from 75,000 to 231,000 Btu's of heat per hour. Complete line of Weathermakers approved by American Gas Assn. for use with all gases. Carrier Corp., 300 South Geddes St., Syracuse, N.Y.

MORE Accessible Storage Space



In this spacious wardrobe the doors are of Perforall (perforated Masonite Duolux) . . . another example of the versatile decorative treatment available in Glide-All Sliding Door panels. Architect: Edward H. Fickett, Builder: Evan Koppe Co.

with **GLIDE-ALL** *Sliding Doors*

Anywhere In The House!

With attractive Glide-All Sliding Doors you can easily and quickly build floor-to-ceiling, wall-to-wall expansive wardrobes, big closets in small rooms, narrow halls, confined entranceways and playrooms. Glide-All Doors are complete, ready to install . . . and they reduce construction costs in both time and material. Standard 6'8" and 8' height panels, in varied widths, are available in either solid or in Perforall (perforated). See "Sweets" or write today for details.

Glide-All Doors are available from distributors throughout the United States and Canada. For information write Plant nearest you.

GLIDE-ALL DOORS ARE A PRODUCT OF
WOODALL INDUSTRIES INC.

DETROIT 34, MICHIGAN

CHICAGO, 3510 Oakton St., Skokie, Illinois
EL MONTE, California, 801 W. Valley Blvd.
FRANKLIN, Ohio, P. O. Box 290
LAUREL, Mississippi, P. O. Box 673
NEW YORK, Glen Cove Road, Mineola, N. Y.
SAN FRANCISCO, 1970 Carroll Avenue

Glide-All Sliding Doors are engineered as a "package door" for easy, fast installation with adjustment features for perfect fitting in out-of-plumb or variable openings and to assure a lifetime of trouble-free service.



ADJUSTABLE UPPER ROLLERS

Steel and molded Nylon roller assembly has full $\frac{3}{4}$ " adjustment simply made by loosening a single screw and moving shielded ratchet mount to desired height.

ADJUSTABLE LOWER GUIDES

Spring steel guides with quiet, smooth acting polyethylene sleeves are concealed inside tube frames. They also adjust within a full $\frac{3}{4}$ " range.



for further details, check numbered coupon, p. 298

BUILDING MATERIALS

402. The Modern Trend in Home Design. Johns-Manville, Dept. HH, 22 E. 40th St., New York. 6 pp.
Asbestos Flexboard in board and batten construction, its possibilities, installation.

* Installation Manual. Vikon Tile Corp., Dept. HH, Washington, N. J. 80 pp. \$1.

A definitive book on the installation of plastic and metal tiles made by Vikon. Extensive coverage of subject from specification to post-installation maintenance.

404. Korelock Ceiling and Wall Panels. Marsh Wall Products, Dept. HH, Dover, Ohio. 4 pp.

Color and pattern samples, and installation instructions for this hollow core paneling with baked plastic finish.

405. Residential Catalogue. Owens-Illinois Glass Block, Dept. HH, Toledo, Ohio. 16 pp.

Glass block and its application in houses with a view towards utility, design and, of course, light.

406. Waylite. The Waylite Co., Dept. HH, Box 30, Bethlehem, Pa. 24 pp.
Masonry units—physical characteristics of the aggregates, construction features of Waylite masonry walls, units for floor and ceiling, finishes, specifications.

407. Distinctive Beauty. Rilco Laminated Products, Inc., Dept. HH, 2591 First Nat'l Bank Bldg., St. Paul, Minn. 4 pp.

Brochure describes standard laminated beams for residential construction. Application data, dimensions, illustrations showing use in contemporary houses.

408. National Electric Raceways. Nat'l Electric Products Corp., Dept. HH, Pittsburgh 22, Pa. 20 pp.

Catalogue describes 4 x 4 and 6 x 6 Wirewa metal raceways which come in standard-sized sections for housing electric wires and cables.

409. Ohio Lime Reference Manual. Ohio Lime Co., Dept. HH, Woodville, Ohio. 24 pp.

Factual information on materials, preparation and use of hydrated lime for finish plaster coats and for masonry mortars.

410. Ultralite duct insulations. Gustin-Bacon Mfg. Co., Dept. HH, 210 W. 10th St., Kansas City, Mo. 8 pp.

Duct insulation and liner composed of

continued on p. 290

specify Cabot's

now!

fill, stain and wax

open-grained woods

in one application

Cabot's

STAIN-WAX-&-FILLER

for interior paneling, woodwork and floors

- saves time and labor — three operations in one
- fills the wood, stains it and gives a wax finish in one application
- developed for Mahogany, Oak, Walnut, Ash
- comes ready for use — no thinning necessary

Available in 7 beautiful colors and Neutral

A quality product from Cabot Laboratories
...manufacturing chemists since 1877

Samuel Cabot

Write for color card and name of nearest distributor in U. S. or Canada

SAMUEL CABOT INC.

330 Oliver Building, Boston 9, Mass.

Please send color card on Stain-Wax-&-Filler

SEE OUR CATALOG IN SWEETS



Upgrade

the value of your kitchen

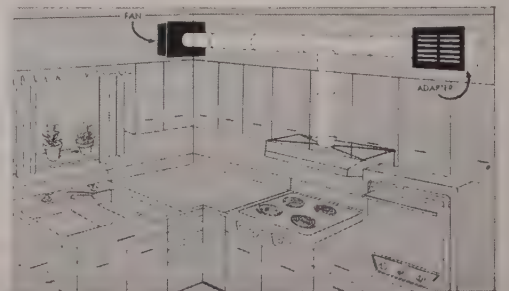
with a *Broan* Motordor Fan



Cash in on the sales excitement of the Broan automatic door

Wherever obvious quality is essential and basic dollar counting a necessity — a Broan Motordor Fan is your first choice for a kitchen, especially a built-in kitchen. Here one Broan fan with economical stove pipe ducts and adapters can do the work that two fans should otherwise be called on to do. This innovation — and one application is illustrated here — provides effective ventilation for the kitchen. It upgrades the value of your work, just as the Broan Motordor upgrades the service of the fan. When the motor is turned on, the door opens automatically . . . and it closes automatically when the motor shuts off . . . a patented feature that fascinates all homemakers.

Write for the name of the Broan distributor in your area and for a factual bulletin that details and illustrates all of the engineering firsts that make Broan fans superior.



Broan makes a complete line of fans for residential and commercial applications. See Sweet's file for 1956 — or write for a free catalog.

Broan MFG. CO., INC.
1679 N. Water Street, Milwaukee 2, Wisconsin

IMPROVEMENT IN WINDOW INSTALLATION SINCE THE INTRODUCTION OF CASEMENT DESIGN

NEW CECO-STERLING ALUMINUM CASEMENT WITH INTEGRAL FIN-TRIM

Product improvement is something that has the constant attention of Ceco research and engineering. Out of it comes many changes that make for better building. Once in a great while an improvement is made that has special significance. Such is the new Ceco-Sterling Casement with Integral Fin-Trim. For this new product presents an improvement equalled only by the introduction of casement design itself. Builders everywhere will want this new Ceco Window because of these advantages:

Installation costs are less than for any other window:

1. There are no fins or outside trim to attach, for at last they are built into the casement, *all in one piece*.
2. Rough openings are easy to figure—no complicated mathematics.

Saves in any kind of construction:

1. In frame construction, siding material can be easily applied up to the trim, *without other finishing*. Fin portions are punched for quick anchoring with screws or nails.

2. In veneer or masonry construction, trim can be used as a convenient masonry guide.

3. In solid masonry, fin gives ideal anchorage in standard openings.

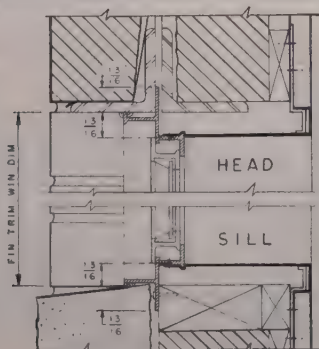
4. In stucco construction, trim is proper depth for framing.

So in the homes you build, consider using the new Ceco-Sterling Aluminum Casement with Integral Fin-Trim. You will be sure of simplified installation and savings in labor costs. This new Ceco Window is available in popular types and sizes from Ceco's nationwide network of warehouses. A special style has been designed for use with stucco construction in Western states. So wherever you are, plan now to profit by reducing window installation costs. *Send coupon for particulars.

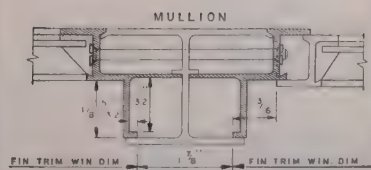
IN CONSTRUCTION PRODUCTS CECO ENGINEERING MAKES THE BIG DIFFERENCE

CECO STEEL PRODUCTS CORPORATION

Offices, warehouses and fabricating plants in principal cities
General Offices: 5601 West 26th Street, Chicago 50, Illinois



Installation with Ceco's Steel Casing results in additional savings by eliminating cost of applying plaster ground, corner bead and inside trim.



Mullion detail—Shaded area shows new window frame section incorporating fin and outside trim. Mullion design has neat interior and exterior appearance... also saves cost of notching the stool.

CECO STEEL PRODUCTS CORPORATION

5601 West 26th Street
Chicago 50, Illinois

Gentlemen: Please send me information about the new Ceco-Sterling Casement with Integral Fin-Trim.

Name _____

Company _____

Address _____

City _____ State _____

HH

continued from p. 284

long textile-type glass fibers bonded together with a thermo-setting plastic resin. Specifications, application techniques, accessory materials.

411. GE Raceways. General Electric Dept. HH, Bridgeport, Conn., 20 pp. Complete data on heavy-wall and thin-wall steel raceways. Tables on allowable conduit and EMT fill for various cable types, test data is also included.

SLIDING DOORS

412. Miller Sliding Glass Doors. Frank B. Miller Mfg. Co., Inc., Dept. HH, 3216 Valhalla Drive, Burbank, Calif. 8 pp.

Aluminum or steel sliding glass door frames, specifications, typical installation details.

413. Space Savers. Nordahl Mfg. Co., Dept. HH, 180 W. Alameda Ave., Burbank, Calif. 6 pp.

Sliding doors for in-the-wall installation. Installation instructions, actual size detail drawings.

414. Arislide Catalogue. Michel & Pfeffer Iron Works, Inc., Dept. HH, 212 Shaw Road, South San Francisco, Calif. 16 pp.

Aluminum sliding windows, aluminum and steel sliding doors with specifications, illustrations, distinctive features.

KITCHENS

415. Norge Built-in Ranges. Borg-Warner Corp., Dept. HH, Merchandise Mart, Chicago. 4 pp.

Built-in ovens, four-burner cooking tops with dimensions, specifications, photographs.

416. Ideas for Kitchen and Laundry. American-Olean Tile Co., Dept. HH, Lansdale, Pa. 6 pp.

How to make the most of ceramic tile in kitchens, laundries by creating easy-upkeep work surfaces, tiled ceilings and floors.

417. Separate Ovens C5.33. The Small Homes Council, University of Illinois Bulletin, Dept. HH, Urbana, Ill. 6 pp. Results of tests to determine the most efficient and convenient oven locations. Types of ovens, installation precautions.

418. Push-A-Matic Ventilating Range Hoods. Berns Mfg. Corp., Dept. HH, Chicago, Ill. 4 pp. Specifications, dimensions of the range hoods with the push-button control of light and 3-speed fan.

continued on p. 296



PROVIDES PERMANENT PROTECTION HERE!

The time to permanently "eliminate" destructive moisture is in the original construction with the use of Sealtight Premoulded Membrane... the industries only TRUE vapor seal. All other methods are merely temporary stop-gaps. Ideal for all types of construction... commercial, industrial and residential. The installation of Premoulded Membrane not only gives you a warm, dry, more liveable home but one that is also more saleable in the future.

When specifying a vapor seal material be sure it meets these Sealtight standards of quality... permeance rating of only .0066 grains per square foot... resistant to rot, mold and termites... expandable... quick and easy to install... only Premoulded Membrane meets them all.

SEALTIGHT

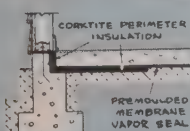
Premoulded Membrane

TRADE MARK

wherever good design requires a TRUE VAPOR SEAL!

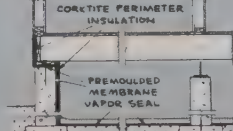
IDEAL FOR ALL TYPES OF CONSTRUCTION

SLAB-ON-GRADE



This illustration shows how the installation of Premoulded Membrane and Corktite completely isolates the slab and superstructure from soil moisture.

CRAWL SPACE



The proper installation of Premoulded Membrane and Corktite removes all danger of condensation and oxidation of metal installations in the crawl space area... eliminates the need for ventilation.

BASEMENT



The proper installation of Premoulded Membrane to the exterior of the basement walls as well as beneath the floor slab insures a permanently warm and dry basement.

ARCHITECTS, BUILDERS, DEALERS...

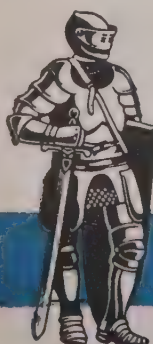
WRITE TODAY for complete information that tells you where, why and how to use Sealtight Premoulded Membrane, the only true vapor seal and Corktite, the resilient, impermeable perimeter insulation.

"Guardian of the Home"

W. R. MEADOWS, INC.

KIMBALL ST.

ELGIN, ILLINOIS



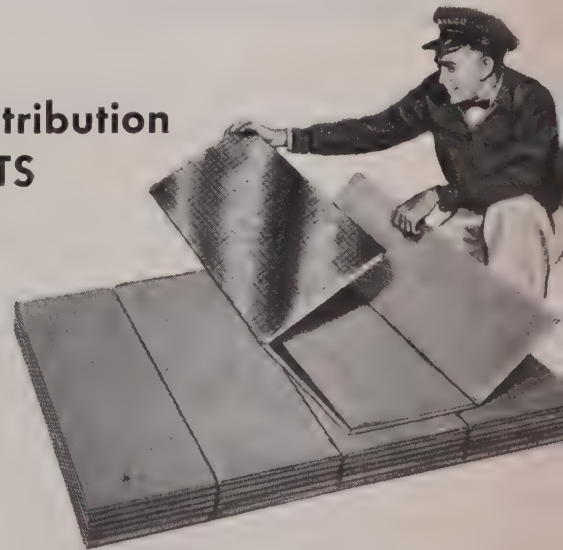
Revolutionary New Super-Economy 2 H.P.

→ PHILCO

Every home buyer wants air conditioning, and now you can offer it at amazing low cost. Philco, leader of the industry for 19 straight years, brings you now a complete package that will add only pennies a day to monthly payments for any home. Compact, lightweight, window-type unit fits easily in attic, crawl space or utility room, and does not need to take up any floor space. It's *air-cooled* . . . thus it needs no water nor expensive cooling tower. Controls can be easily installed at any convenient location. Thermostat regulates temperature automatically. Single-unit system does not require magnetic starter. Single-phase wiring saves expense. And it has many other exclusive advantages . . . be sure you get the full story.

Easy to Install Glass Fiber Air Distribution System . . . NO METAL DUCTS

Philco's new 2 H.P. air conditioning system is amazingly easy to install. Pre-fabricated glass fiber air distribution system is assembled by merely folding sections into position and taping the joining edges. Material is easily cut with a sharp knife. It costs far less, yet it has many advantages over other types of installations because it is lightweight—easy to handle . . . insulation and absence of metal to metal contacts reduces noise . . . adhesive sealing eliminates tendency for air leaks caused by screw holes . . . and there's no rusting or corrosion.



Multiple-Unit Plan for Larger Homes

Large homes, like the example shown here, may require two or more Philco 2 H.P. units to air condition the entire residence. There are, however, alternative plans where one unit can be used to cool the bedrooms at night and the rest of the home during the day. Philco's system is unmatched for flexibility.



Write for Free Details

PHILCO AIR CONDITIONERS, Dep't HH-3
C & Tioga Sts., Philadelphia 34, Pa.

Without obligation, please send me specification pages and data about the new Philco 2 H.P. air conditioner system.

NAME

COMPANY

STREET

CITY ZONE

COUNTY STATE

for further details check numbered coupon p. 298

The first "who's who" in American architecture, sponsored by the AIA under the editorship of Dr. George S. Koyl. Alphabetically arranged biographies, home and business addresses, architectural achievements, positions held, education, professional affiliations. Geographical cross-index to all architects listed, etc.

CONCRETE BLOCK CONSTRUCTION

Here is a list of technical publications on concrete block construction. All are not necessarily new this month. However, they are listed for readers who may want detailed technical information in addition to that given on pp. 154 to 155.

427. Concrete Masonry Handbook. Portland Cement Assn., Dept. HH, 33 W. Grand ave., Chicago 10, Ill. 64 pp.

This handbook is for architects, builders and engineers and is probably the most complete technical publication available on the subject of concrete blocks. Purpose of the handbook is to provide "concisely and graphically the latest recommended practices in concrete masonry construction." Detailed information is given on the physical characteristics of typical concrete block units, how to design and build walls, wall patterns and surface treatments. In addition, there are 26 pages of suggested details for concrete masonry construction. This last section is also available separately; ask for AIA File 10-C, "Suggested Details of Concrete Masonry Construction."

428. Recommended Practices for Laying Concrete Block. Portland Cement Assn., Dept. HH, 33 W. Grand Ave., Chicago 10, Ill. 30 pp.

This booklet illustrates and describes some of the practices in building a concrete block wall which "experienced masons are following . . ." Recommended mortar mixes are given. How to make control joints is shown and described. Also included is information on making lintels and sills, special corners, cavity walls and foundation walls.

429. Design and Control of Concrete Mixtures. Tenth Edition. Portland Cement Assn., Dept. HH, 33 W. Grand Ave., Chicago 10, Ill. 68 pp.

This booklet discusses how to make concrete blocks. Fundamental facts are given about concrete itself, besides technical information on making different kinds of blocks to suit a variety of construction conditions.

430. Beautiful Walls of Concrete Masonry. Portland Cement Assn., Dept. HH, 33 W. Grand Ave., Chicago 10, Ill. 16 pp. in color.

This is a picture booklet showing actual examples of the variety of colors possible with concrete block walls in houses and other kinds of structures. Special examples show how colors can be varied for house interiors and for such uses as fireplaces and chimneys.

continued on p. 296



NOW...famed **ZIPPOS**
in many models can help YOU
in the construction field

Whether you're a builder . . . prefabricator . . . subcontractor or supplier . . . here's a check list of important ways that special gift Zippos can help your business:

1. ADVERTISING! Your trademark or message on a Zippo gets frequency of impact for years! Costs less than 1c a week! The average user will light his Zippo—and see your name—73,000 times! We'll help you design your Zippo!

2. GIFTS! Zippos in many models for the full range of gift giving to valued customers . . . prospects . . . suppliers. Zippo finishes range from gleaming chrome to 10-kt. gold filled! Each has world-famed Zippo quality, reliability, beauty—plus the famous Zippo guarantee.

3. INCENTIVES! Your cost man will be delighted with the way Zippos cut man-hours and get jobs done when they're offered as incentive prizes!

4. RECOGNITION! Say "Thanks for a job well done" with Service Recognition Zippos! Use special Zippos to improve safety records . . . commemorate anniversaries . . . for sports events . . . banquets . . . housewarmings . . . completed projects.

Send coupon below for the full story!

ZIPPO MANUFACTURING COMPANY, Bradford, Pa. Dept. H-853

Please furnish me information on how Zippos can help me with

☐ Advertising ☐ Gifts ☐ Incentives ☐ Recognition

Name _____ Position _____

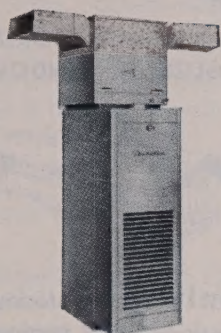
Firm _____

Address _____

4

newly designed, lower cost yearound airconditioning systems

help builders close more sales



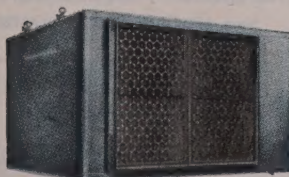
Hi-Boy Heating
with Plenum Type Cooling



Lo-Boy Heating
with Duct Evaporator Cooling



Counterflow Heating and Cooling



Suspended Horizontal Cooling

Builders can now choose from four compact WILLIAMSON Wethermatic Yearound Airconditioning systems . . . the cooling equipment requires *no floor space*. Williamson Wethermatics are low cost, quickly installed and premerchandised with an all-round national consumer promotion in major shelter magazines.

WILLIAMSON

"WETHERMATIC" SYSTEMS CONSIST OF:

The "SPECIAL" Line—A Builders Type Warm Air Furnace

New lower prices reflecting mass production savings

- 20 gas-fired, 12 oil-fired models
- 60,000 to 145,000 B.T.U. Range
- Hi-Boy, Lo-Boy, Counterflow, Gravity and Horizontal Units
- Pre-Wired, pre-Assembled, factory test-fired.

New color choice . . . Gray Metalescent or Gleaming White

AIRrefrigeration Waterless Cooling—

- No floor space installations
- No costly sewer or water connections
- Internally factory wired, easily installed.
- 2, 3, 4, 5 or 7½ ton size models
- Console and suspended models where desired.

Prefabricated Duct Pipe & Fittings—For Heating and Cooling

- Die Cut, prefabricated, each fitting interchangeable with others
- Fittings shipped packed per house plan
- Tailor-made look, designed to fit within the joists
- Designed for minimum air resistance—maximum air flow efficiency.

See our 12-page
catalog insert
in SWEET'S
1956 Light
Construction Files.

Visit Booth No. 839
NAHB
Convention

THE WILLIAMSON COMPANY
3334-A-1 Madison Rd., Cincinnati 9, Ohio

Please send me information on:

- ☐ Yearound Airconditioning
☐ Heating Equipment

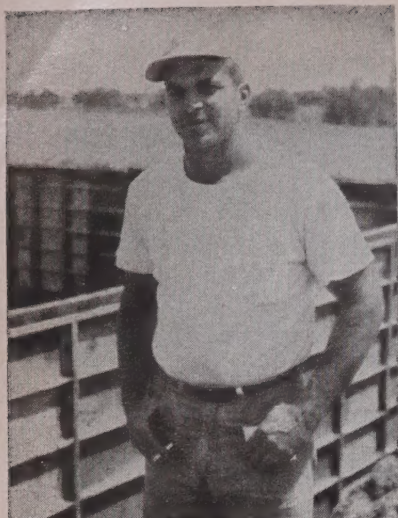
- ☐ Cooling Equipment
☐ Duct, Pipe and Fittings

Name _____

Firm _____

Address _____

City _____ Zone _____ State _____



Homes constructed by
Palmer & Krueger, Kenosha, Wisconsin

Magnesium Forms Speed Work on Kenosha Jobs

Jim Krueger of Palmer & Krueger, Kenosha, Wisconsin says that after several days rain which left the ground muddy and substantial water in the excavation, his men were still able to strip Symons Magnesium Frame Plywood Forms from one job, load them on a truck, and take them to another job at the other end of town, unload them and set them up ready for pouring by 1:30 P.M.

ACTUAL SET-UP TIME—2 HOURS

The foundation was 30' x 42' with window bucks and brick ledge. Walls were 7 feet high and 10 inches thick. Jim Krueger credits the fast set-up to Symons Lightweight Magnesium Frame Plywood Forms and his crew of 4 experienced men.

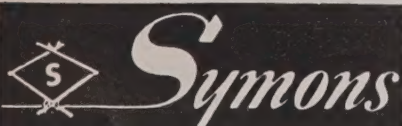
90 USES PER SET PER YEAR

Palmer & Krueger has two sets of Symons Magnesium Frame Plywood Forms. They pour an average of 6 foundations per week. Before each use, the forms are oiled with a horse hair window brush that has a six foot handle. Forms set up one day are always stripped the following morning. Time required for stripping is approximately one hour.

FREE ENGINEERING SERVICE

Upon receipt of your plans our engineering staff, which is experienced with all types of forming, will furnish complete form layouts and job cost sheets on your form work—at no charge or obligation. Our salesmen are always available for consultation and to give advice on form erection, pouring and stripping methods. Builders throughout the country use this service to their benefit and profit.

Rentals—Symons Forms, Shores and Column Clamps may be rented with purchase option, all rentals to apply on purchase price.



SYMONS CLAMP & MFG., CO.
4277 Diversey Avenue, Chicago 39, Illinois, Dept. C-6
Please send complete information on Symons Plywood Forms in Magnesium Frames.

Name _____
Firm _____
Address _____
City _____ Zone _____ State _____

Technical Publications

continued from p. 290

for further details, check numbered coupon, p. 298

FLOORING

419. Vinyl-Cork Tile. Dodge Cork Co., Inc., Dept. HH, Lancaster, Pa., 8 pp. Installation, maintenance and design data on Dodge vinyl-cork. Color reproductions of pattern, texture and hue.

420. Architect's Specification Guide. Kentile, Inc., Dept. HH, Brooklyn, N. Y., 16 pp.

An indexed notebook of Kentile flooring and how to prepare floors and install product. Descriptions, dimensions.

ACCESSORIES

421. How to select the right door chime. The Rittenhouse Co., Inc., Dept. HH, Honeoye Falls, N. Y. 12 pp. Information on advance preparation for wiring and location of chimes at various stations. Recommended installatoin for houses of various size. Styling and features.

422. Donner bathroom accessories. Donner Mfg. Co., Dept. HH, North Hollywood, Calif. 8 pp.

Chrome bathroom accessories of various types and styles with a new installation wall plate design, adjustable both horizontally and vertically.

423. Sliding hardware catalogue. Grant Pulley & Hardware Corp., Dept. HH, 31-85 Whitestone Parkway, Flushing 54, N. Y. 60 pp.

Sliding door hardware, drawer slides, curtain and drapery traverse hardware, with illustrations, features, over-all specifications, installation and packaging.

424. TV outlets and wiring materials. Mosley Electronics, Inc., Dept. HH, St. Louis 14, Mo. 4 pp.

Illustrations, descriptions, technical specifications, plus TV lead-in accessories and prices on all items listed.

BOOKS, REPORTS

* Selected plans for new air conditioned homes. Associated Plan Service, Inc., Dept. HH, Huntington, Long Island, N. Y. 60 pp. 50¢ ea.

Book of house plans embodying central air conditioning systems by Carrier Corp., compiled from the work of 12 architects. More than 50 designs for all parts of the country, blueprints, specifications and lumber list.

* American Architects' Directory 1956. Published by R. R. Bowker Co., Dept. HH, 62 W. 45th St., New York 19, N. Y. 8¾ x 11¼, cloth bound, 748 pp. \$20.

continued on p. 298

never before!...
**SUCH QUALITY,
BEAUTY AND
MODERN FEATURES!**



Glidemaster

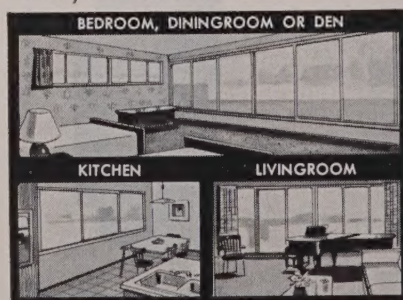
ALUMINUM HORIZONTAL GLIDING WINDOW



only window today that's
designed and engineered
with such features as these for
tomorrow's modern living—

- New V-shape twin interlock for perfect weather seal
- needle roller-bearings on stainless steel pins for permanent feather-glide
- streamlined "invisible" handle with automatic tamper-proof bolt-lock
- double-glazed—no storm windows needed
- built-in rust-proof aluminum screen
- lifetime wear due to heavy extrusions, double I-beam sill, integral jamb flanges and fin.

Glidemaster
...your window for tomorrow's



Mail Coupon for } GLIDEMASTER DIVISION
FREE Brochure! } 354 S. Sanford, Pontiac, Michigan
Send BROCHURE on GLIDEMASTER Windows.

(NAME)

(NUMBER - STREET)

(CITY - ZONE - STATE)

Homes Wired for Tomorrow are 'Wired for TV' with **mosley** television lead-in wall plate sockets

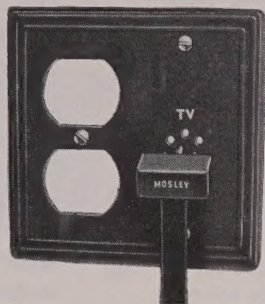
COLOR Television demands a good *outside* antenna installation!

Modern homes are ready for this modern home need when they are equipped with MOSLEY AC/TV Wall Plate Sockets that permit plug-in connection of TV set to antenna at any one of several different locations.

MOSLEY Wall Plate Sockets are low in cost — easy to install to meet requirements of electrical code. They are *TV Engineered* for efficient performance and styled to harmonize with existing electrical wall plates.

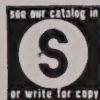
Your clients will want their homes *Wired For Tomorrow ... Wired For TV* with MOSLEY TV Wall Plate Sockets!

MOSLEY TV Wiring Devices are available coast-to-coast. Write for name of nearest supplier.



Type AC-1PK. List Price \$1.87
Single TV socket for one antenna lead-in plus matching wall plate for double convenience outlet. Complete with TV Plug, plated machine screws, metal barrier for separating AC and TV services and full instructions. Less box and AC socket. In brown or ivory.

Other types available for multiple lead-in lines and combination lead-in and rotor cable.



31c/8i
Mo

Mosley Electronics, Inc.

8622 ST. CHARLES ROCK ROAD, ST. LOUIS 14, MISSOURI

- * see how you can profit from the most significant change in homebuilding today

- * Look for HOUSE & HOME's

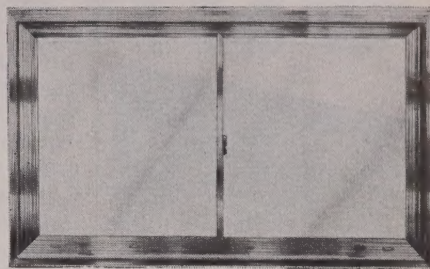
MODULAR COMPONENTS DIRECTORY

June 1956

- * the first and only such directory in the field

most advanced
**READY-TO-INSTALL
WINDOWS!**

WEATHER WIZARD'S
ALPRIDE
PRIME ALUMINUM HORIZONTAL
SLIDING AND PICTURE WINDOWS



Horizontal Slider



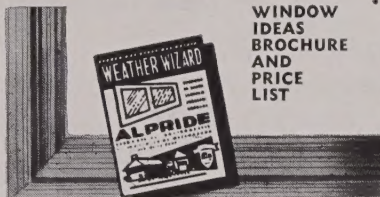
Sliding Picture Window

with Integral Fin
Trim or for
Wood-Buck
Installation



WRITE FOR FREE ALPRIDE

WINDOW
IDEAS
BROCHURE
AND
PRICE
LIST



- Specially designed positive lock
- Heli-arc welded frames
- Built-in stainless steel weather stripping
- Beveled for drainage
- Easy to install storm and screen sash
- Panels are easy sliding, easy to remove and clean
- Horizontal sliders available in 29 popular sizes and picture windows in 12 popular sizes

PRICED RIGHT!

WEATHER WIZARD
ALUMINUM MANUFACTURING CORP.
50 Tulip Place
Garden City Park, L. I. N. Y.

THIMBLE MAGIC...

A New Kind of Louver

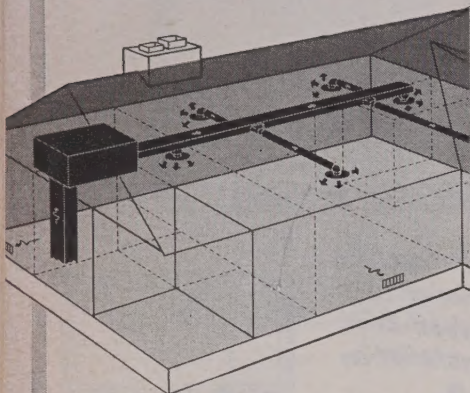
... the Midget Thimble lets air into places no other louver can reach, protects paint, wood and metal from excess heat and moisture.

Thimble Louvers are always used with regular Midget Louvers, feature same easy push-in installation, hold securely without nails or screws. Perforated design is insectproof, won't clog when painted.

Midget Louver's standard line now offers chrome, anodized, copper, and aluminum in 1, 1½, 2, 2½, 3, 4, and 6 inch sizes. All Midget Louvers are recommended by the American Paint and Varnish Association. Write for full information on humidity control—

MIDGET LOUVER COMPANY
6 WALL STREET • NORWALK, CONNECTICUT

Ranch House with attic furnace

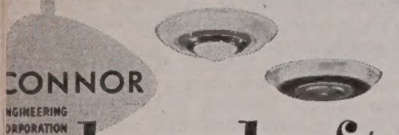


and Kno-Draft Overhead Air Diffusers

Attic warm air heating and cooling systems are easiest to install, and give owners best results in terms of comfort and economy, when the room outlets are Kno-Draft Overhead Air Diffusers.

Kno-Draft Diffusers mix five parts of room air to every part of supply air within a few feet of the diffuser. This is more than twice the mixing the average grille can do, handling the same volume of air. Moreover, the mixing is well above the heads of room occupants—there are *no drafts*, temperature is uniform throughout the room.

Kno-Draft offers many other benefits to you and your customers. For full information, mail the coupon today. Connor Engineering Corporation, Danbury, Connecticut.



kno-draft®

residential air diffusers

CONNOR ENGINEERING CORP.
P.O. Box 36, Danbury, Connecticut

Please send, without obligation, Bulletin KH-76A describing Kno-Draft Air Diffusers for use with attic furnaces and other warm air heating units.

Name _____
Company _____
Street _____
City _____ Zone _____ State _____

Technical Publications

431. Ideas for Wall Patterns with Concrete Masonry. National Concrete Masonry Assn., Dept. HH, 38 South Dearborn St., Chicago 3, Ill. 16 pp.

This booklet shows some of the many wall patterns that can be designed with concrete blocks. This includes use of the nominal 8" x 16" face size, as well as many of the new sizes, styles and textures now available. A variety of patterns are given for both interior and exterior walls. Also included is a discussion on suggested wall finishes that gives information on the different kinds of paints available for concrete block walls.

432. Concrete Masonry Construction Details. National Concrete Masonry Assn., Dept. HH, 38 South Dearborn St., Chicago 3, Ill. 26 pp.

This booklet not only gives concrete block details but also shows both the correct and incorrect ways for drawing foundation plans and elevations with concrete blocks. And like the details published by the Portland Cement Assn., mentioned above, these are based on modular design, with photographs and specifications which point up ideas.

PRODUCTS AND PUBLICATIONS COUPON

For more information on new products and publications in this March issue

check key numbers below and mail to: **House & Home**

9 Rockefeller Plaza, New York 20, N.Y.

NEW PRODUCTS

- a. Air Control's adjustable ceiling diffuser..... ☐
- b. Borg-Warner recessed air conditioner..... ☐
- c. Bostitch stapling hammer..... ☐
- d. Olsen air conditioning unit..... ☐
- e. GE outdoor thermostat..... ☐
- f. Penn 880 thermostat..... ☐
- g. Crawford garage doors..... ☐
- h. Horizon sliding aluminum window..... ☐
- i. Fleetline double sliding window..... ☐
- j. Steelcraft steel door..... ☐
- k. Closur-Dor..... ☐
- l. Bird Ranch Roof..... ☐
- m. Ornamented Concrete tools..... ☐
- n. Remcom remote control switching..... ☐
- o. APSCO prefab copper plumbing wall..... ☐
- p. Puget Sound designed plastic panel..... ☐
- q. American Houses..... ☐
- r. Pease Homes, Division Pease Woodwork..... ☐
- s. Factory-Built Homes..... ☐
- t. Glissade bathroom vanity..... ☐
- u. Macklanburg-Duncan aluminum threshold..... ☐
- v. Vikon stainless steel tile..... ☐
- w. Lennox remote air conditioning unit..... ☐
- x. Conco cooling unit..... ☐
- y. Carrier Winter Weathermaker..... ☐

TECHNICAL PUBLICATIONS

- 402. Johns-Manville Flexboard..... ☐
- 404. Marsh wall products..... ☐
- 405. Owens-Illinois glass block..... ☐
- 406. Waylite masonry units..... ☐
- 407. Rilco laminated beams..... ☐
- 408. Nat'l Electric metal raceways..... ☐
- 409. Ohio Lime reference manual..... ☐
- 410. Gustin-Bacon duct insulations..... ☐
- 411. GE raceways..... ☐
- 412. Miller sliding doors..... ☐
- 413. Nordahl sliding doors..... ☐
- 414. Arislide catalogue..... ☐
- 415. Norge ranges..... ☐
- 416. American-Olean kitchens..... ☐
- 417. SHC oven brochure..... ☐
- 418. Berns Push-A-Matic range hoods..... ☐
- 419. Dodge vinyl-cork tile..... ☐
- 420. Kentile specification guide..... ☐
- 421. Rittenhouse door chimes..... ☐
- 422. Donner bathroom accessories..... ☐
- 423. Grant sliding hardware..... ☐
- 424. Mosley TV outlets..... ☐
- 427. Portland Cement handbook..... ☐
- 428. Portland Cement recommended practices..... ☐
- 429. Portland Cement concrete mixtures..... ☐
- 430. Portland Cement masonry walls..... ☐
- 431. NCMA wall patterns..... ☐
- 432. NCMA construction details..... ☐

* For information about unlisted Technical Publications see below.

NAME _____

OCCUPATION _____ TITLE _____

FIRM _____

STREET _____

CITY _____ STATE _____

IMPORTANT:

Any inquiries with money or check enclosures must be addressed directly to the manufacturer.

In addressing direct inquiries, please mention

House & Home and the issue in which you saw the product or publication.

I wish to enter a subscription to **House & Home** for

1 year, \$6 ☐ 2 years, \$8 ☐

US and possessions and Canada only

☐ New

☐ Renewal

Signature _____